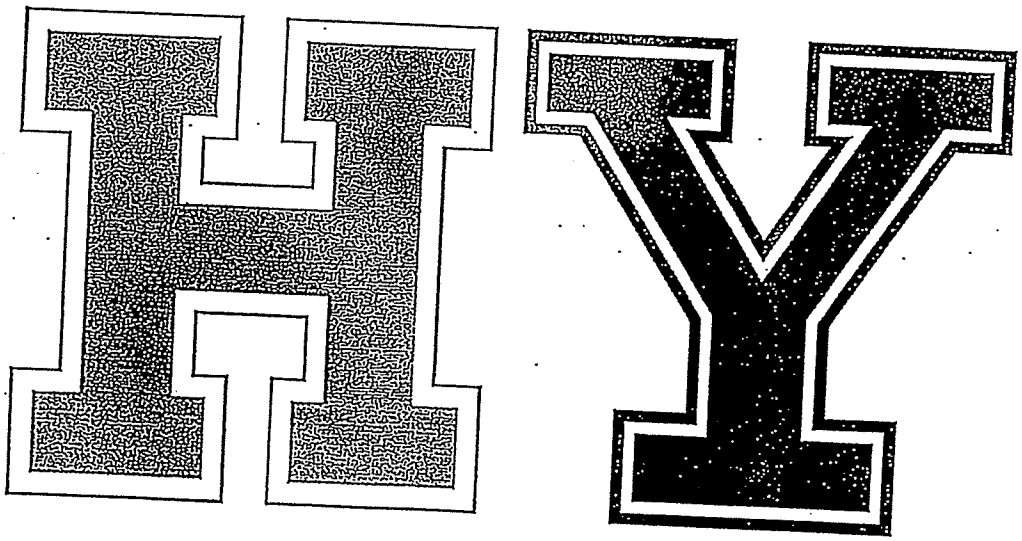
3rd Grade

January Math Review



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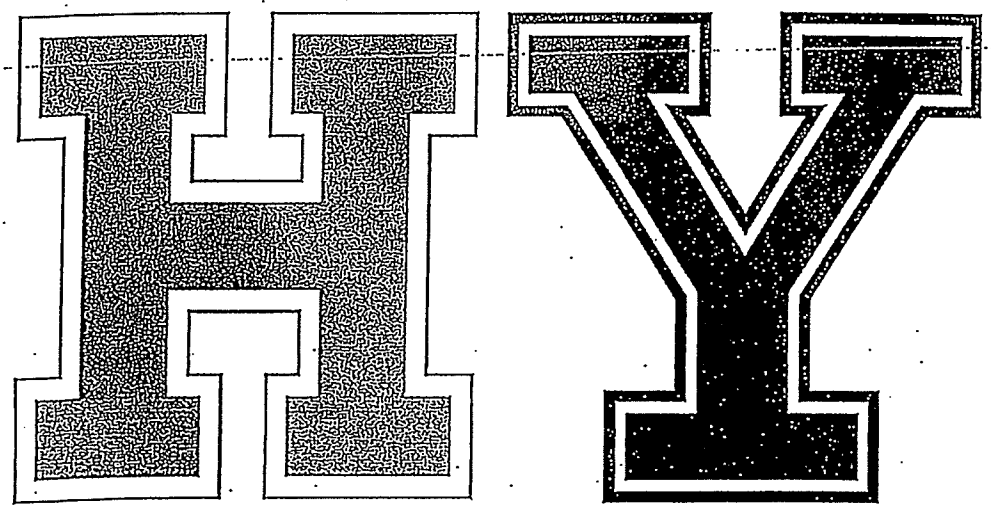


Week 1

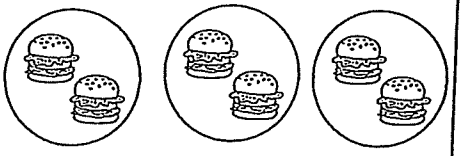
Name: _____ Date _____

Math Review

Module 1
(1-5)

3.OA.3
Draw a picture to show
3x4 = 12

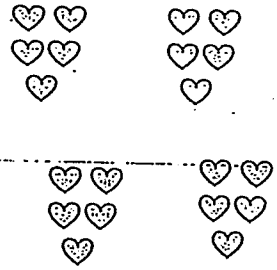
3.OA.3
Fill in the blanks to make true repeated addition and multiplication sentences for the picture below.



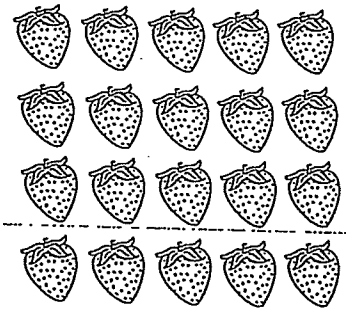
___ + ___ + ___ = ___
___ X ___ = ___

3.OA.3
Draw a picture to show
5 + 5 + 5 = 15

3.OA.3
4 groups of 5 = ____
4 fives = ____
4 x 5 = ____



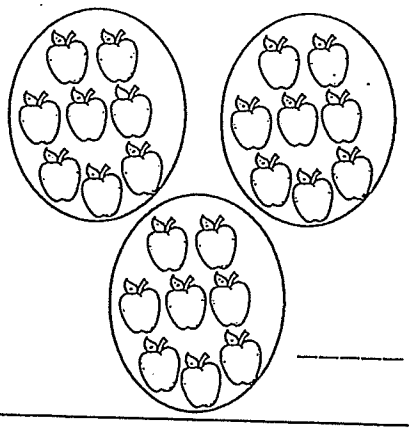
3.OA.3
Number of rows = ____
Number of objects in each row = ___



3.OA.3
Tom collects stamps. He arranges them in 4 rows of 2. Draw Toms array to show how many stamps he has altogether.

3.OA.2&3
Draw an array that shows 3 rows of 2. Then draw a number bond where each part represents the amount in one row.

3.OA.2
24 apples are divided into 3 equal groups. How many apples are in each group?



____

3.OA.2
Jenny has 12 cupcakes. She wants to give them to 3 friends. Draw a division sentence to show how many cupcakes each friend will get.

Name: _____ Date _____

Math Review

Module 1
(6-10)

3.OA.3

Chelsea arranges 14 notecards into rows of 7 for her presentation. Draw an array to represent the problem.

3.OA.1-3

25 children play a game. There are 5 children on each team. How many teams are there? Draw a division sentence for this problem.

3.OA.3 & 6

Complete the following problems:

$24 \div 4 = \_\_\_\_$

$4 \times \_\_\_\_ = 24$

3.OA.5

Do you agree or disagree with the following equation? Explain your thinking using arrays and skip-counting.

$4 \times 2 = 2 \times 4$

3.OA.5

Find the missing factor for each equation.

$5 \times 2 = \_\_\_\_ \times 5$

$\_\_\_\_ \times 2 = 2 \times 7$

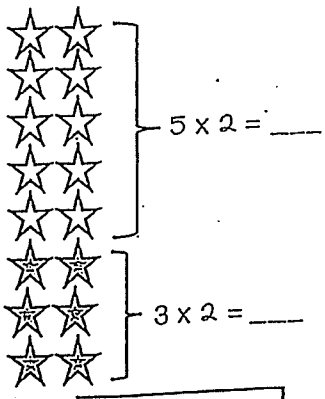
$9 \times 2 = \_\_\_\_ \times 9$

3.OA.3

Alex organizes her stickers on a page in her sticker book. She arranges them in 4 rows of 3. Draw an array to show her stickers.

3.OA.5

$8 \times 2 =$

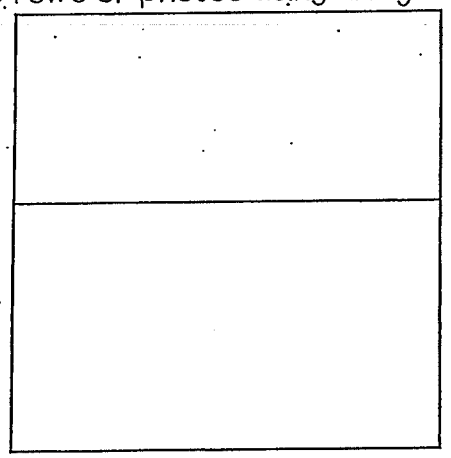


$10 + 6 = \_\_\_\_$

$\_\_\_\_ \times 2 = 16$

3.OA.3

Daniel makes a photo book. One page is shown below. He puts 3 photos in each row. Fill in the equations and draw the rows of photos using arrays.



Name: _____ Date _____

Math Review

Module 1 (11-15)

3.OA.3

There are 18 Oreos in a box. Julia eats 2 Oreos each day. How many days will it take her to finish the box?

3.OA.1-3

Carl buys a sheet of stamps that measures 21 inches long. Each stamp is 3 centimeters long. How many stamps does Carl buy? Draw and label a tape diagram to solve.

3.OA.2

Complete the following problems:

$27 \div 3 = \_\_\_\_$

$3 \times \_\_\_\_ = 27$

3.OA.5

Do you agree or disagree with the following equation? Explain your thinking using arrays and skip-counting.

$3 \times 7 = 7 \times 3$

3.OA.5

Find the missing factor for each equation.

$1 \times 3 = \_\_\_\_ \div 3 = 1$

$7 \times 3 = \_\_\_\_ \div 3 = 7$

$9 \times 3 = \_\_\_\_ \div 3 = 9$

3.OA.2

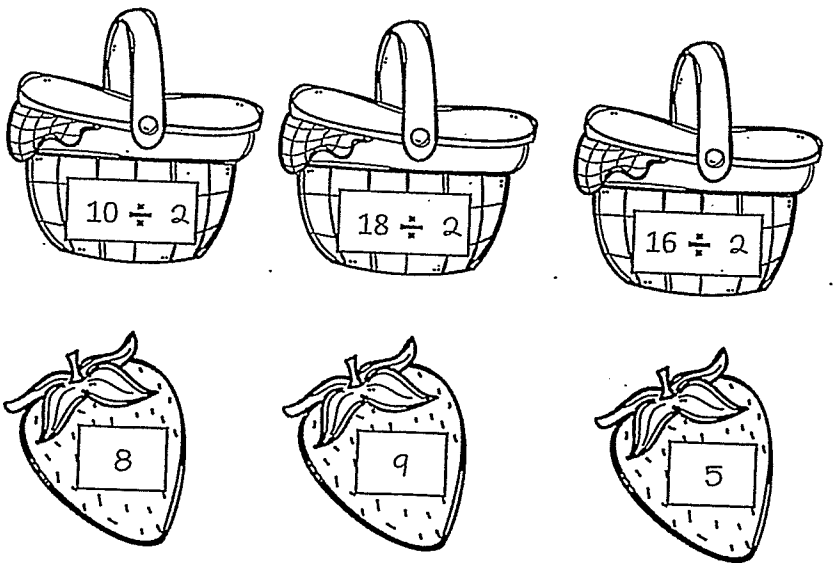
Mrs. Opal has 24 pencils. They are divided equally among 3 students. How many pencils does each student get?

3.OA.1

Skip count by 4's

4				
20				
6				

Match.



Name: _____ Date _____

Math Review

Module 1
(16-21)

3.OA.3

There are 28 third graders working in groups of 4. How many groups are there?

3.OA.1-3

Sam is replacing each of the 4 wheels on 7 cars. How many wheels is he replacing? Draw and label a tape diagram to solve.

3.OA.3

Complete the following problems:

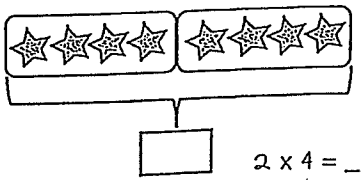
2 x 4 = _____

3 x 4 = _____

4 x 4 = _____

3.OA.5

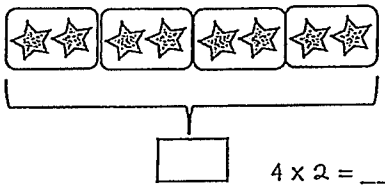
Label the tape diagram. Then, draw an array to match.



2 x 4 = ____

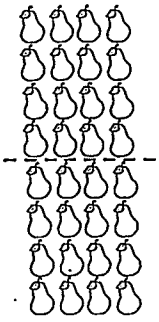
3.OA.5

Label the tape diagram. Then, draw an array to match.



4 x 2 = ____

Noah draws the array below to find the answer to 8x4. He says, "8x4 is just double 4x4." Explain Noah's strategy.

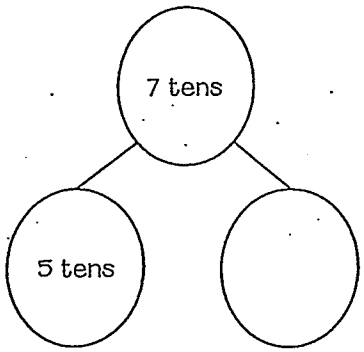


3.OA.2

Esin uses 28 apples to make 7 pies. How many apples are in 3 pies? Draw and label a tape diagram to solve.

3.OA.1

7 x 10 =



5 tens + _____ tens = ____ tens

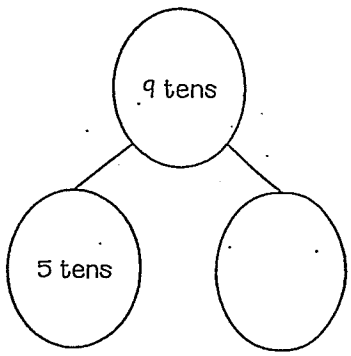
5x10 + (_____ x 10) = 7 x 10

50 + _____ = _____

7 x 10 _____

3.OA.1

9 x 10 =



5 tens + _____ tens = ____ tens

5x10 + (_____ x 10) = 9 x 10

50 + _____ = _____

9 x 10 _____

1. There are 4 flower beds in Max's yard. Three rosebushes grow in each flower bed. How many rosebushes are there? Draw circles to model the problem and explain how to solve it.

_____ rosebushes

2. Greta put 6 coins into each of 3 stacks. She wrote this number sentence to represent the total number of coins.

$$3 \times 6 = 18$$

What is a related number sentence that also represents the total number of coins she has?

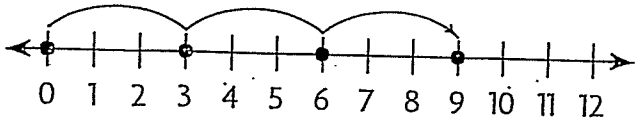
Ⓐ $6 \times 3 = \square$

Ⓑ $6 + 3 = \square$

Ⓒ $3 + 3 + 3 = \square$

Ⓓ $6 \times 6 = \square$

3. Cecile went fishing for three days at a lake. The first jump on the number line shows how many fish she caught the first day. She caught the same number of fish the next two days.



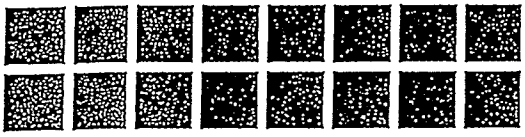
Write the multiplication sentence that the number line shows.

_____ × _____ = _____

GO ON

4. Ben drew an array to show the number of video games he has.

Write a multiplication sentence for the array.



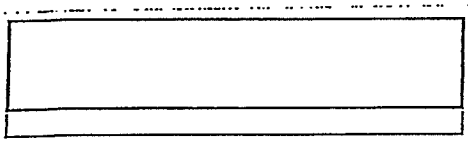
_____

5. Julissa makes 4 bracelets. She uses 9 charms on each bracelet.

For numbers 5a–5d, tell if the number sentence could be used to find the number of charms Julissa uses.

5a.	$4 + 9 = \square$	○ Yes	○ No
5b.	$3 + 3 + 3 + 3 = \square$	○ Yes	○ No
5c.	$9 + 9 + 9 + 9 = \square$	○ Yes	○ No
5d.	$4 \times 9 = \square$	○ Yes	○ No

6. Edith sorts buttons into 4 groups for her art project. Each group contains 6 buttons. How many buttons does Edith sort? Make a bar model to solve the problem.



____ buttons

7. Select the number sentences that show the Commutative Property of Multiplication. Mark all that apply.

Ⓐ $5 \times 2 = 5 + 5$

Ⓑ $6 \times 0 = 6$

Ⓒ $7 \times 5 = 5 \times 7$

Ⓓ $8 \times 1 = 1 \times 8$

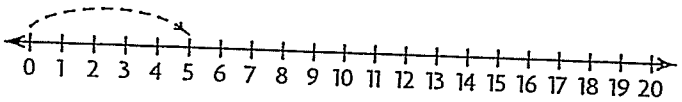
Ⓔ $9 \times 1 = 9$

GO ON

8. There are 5 tables in the library. Four students are sitting at each table. How many students are sitting in the library?

_____ students

9. Keisha needs 3 equal lengths of rope for a Field Day activity. The jump on the number line shows the length of one rope in yards. How many yards of rope does Keisha need?

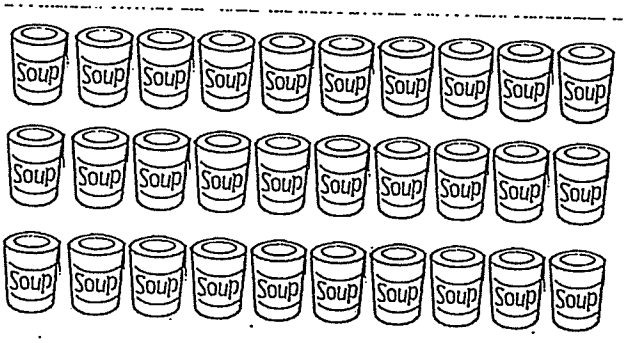


_____ yards

10. Anna's mom makes 3 sandwiches every school day. Each sandwich gets 3 slices of cheese. How many slices of cheese will Anna's mom need for all the sandwiches she makes on 2 school days?

_____ slices of cheese

11. Angelo stacked 30 cans of soup collected during a food drive.



Select other ways Angelo could arrange the same number of cans. Mark all that apply.

Ⓐ 1 row of 30

Ⓑ 5 rows of 6

Ⓒ 6 rows of 6

Ⓓ 8 rows of 4

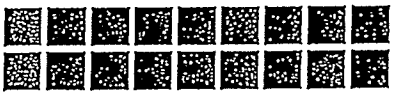
Ⓔ 10 rows of 3

GO ON

12. Choose the number that makes the sentence true.

The product of any number and | 0 / 1 / 10 | is zero.

13. Ellen made this array to show that $2 \times 9 = 18$.



Part A

Ellen says that $9 \times 2 = 18$. Is Ellen correct? Draw an array to explain your answer.

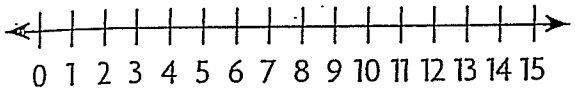
Part B

Which number property supports your answer? Explain.

_____

_____

14. Abdul has a collection of stamps. He puts the stamps in 2 equal groups. There are 7 stamps in each group. How many stamps does Abdul have? Use the number line to show your work.



_____ stamps

GO ON

15. Hudson and Asher each collect comic books.

Part A

Hudson sorts his comic books into 3 piles. Each group has 7 comic books. How many comic books does he have?

_____ comic books

Part B

Asher sorts his comic books into 4 piles. Each pile has 2 comic books in it. Write a multiplication sentence to show how many comic books Asher has.

Then find how many comic books Hudson and Asher have.

_____

_____ comic books

16. Aiden sees 4 lifeguard towers at the beach. Each tower has 1 lifeguard. Write a multiplication sentence to show the number of lifeguards Aiden sees.

_____ × _____ = _____ .

17. Jorge spends 7 minutes completing each of 4 puzzles. He can use 7×4 to find the total amount of time he spends on the puzzles.

For numbers 17a–17d, choose Yes or No to show which expressions are equal to 7×4.

17a. $7 + 4$ ○ Yes ○ No

17b. $7 + 7 + 7 + 7$ ○ Yes ○ No

17c. $4 + 4 + 4 + 4 + 4 + 4 + 4$ ○ Yes ○ No

17d. $7 + 7 + 7 + 7 + 7 + 7 + 7$ ○ Yes ○ No

GO ON

18. Maya buys 3 bags of dried pears. Each bag contains 6 dried pears.

Select the number sentences that show all the dried pears Maya buys. Mark all that apply.

Ⓐ $3 + 3 + 3 = 9$

Ⓑ $3 + 3 + 3 + 3 + 3 + 3 = 18$

Ⓒ $6 + 3 = 9$

Ⓓ $6 + 6 + 6 = 18$

Ⓔ $3 \times 6 = 18$

Ⓕ $9 + 9 = 18$

19. Javier is making 6 smoothies. He puts 4 strawberries and 1 banana in each smoothie.

Part A

Write the total number of strawberries and bananas he uses. Write a multiplication sentence for each.

_____ strawberries

_____ × _____ = _____

_____ bananas

_____ × _____ = _____

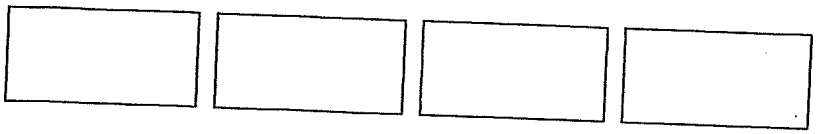
Part B

After making 6 smoothies, Javier has 9 strawberries and 4 bananas left. What is the greatest number of smoothies he can make with that fruit if he uses the same recipe for all the smoothies? Draw models and use them to explain.

At most, he can make _____ more smoothies.

1. Alberto packed 8 apples in each of 4 boxes. How many apples did Alberto pack?

Draw circles to model the problem. Then solve.



_____

_____

2. For numbers 2a–2d, select True or False for each multiplication sentence.

2a.	$3 \times 8 = 24$	○ True	○ False
2b.	$5 \times 8 = 48$	○ True	○ False
2c.	$7 \times 8 = 56$	○ True	○ False
2d.	$9 \times 8 = 81$	○ True	○ False

3. Peggy is putting flowers in vases. She puts either 2 or 3 flowers in each vase. If Peggy has a total of 12 flowers, how many different ways can she place them all in the vases?

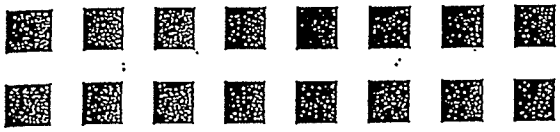
Write multiplication sentences to show your work.

4. Dean plants 7 corn plants in each of 5 rows. How many corn plants does Dean plant?

_____ plants

GO ON

5. Circle groups to show $4 \times (2 \times 2)$.



6. Rebecca keeps all of her pairs of gloves in a drawer. Select the number of gloves that Rebecca could have in the drawer. Mark all that apply.

Ⓐ 5

Ⓑ 4

Ⓒ 6

Ⓓ 11

Ⓔ 10

7. Hal completed the table to describe the product of a mystery one-digit factor and each number.

×	1	2	3	4	5
?	odd	even	odd	even	odd

Part A

Give all of the possible numbers that could be Hal's mystery one-digit factor.

_____

Part B

Explain how you know that you have selected all of the correct possibilities.

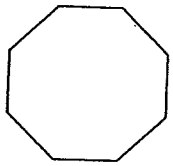
_____

_____

_____

GO ON

8. Yuri used toothpicks to make 6 separate octagons. An octagon has 8 sides. How many toothpicks did Yuri use?

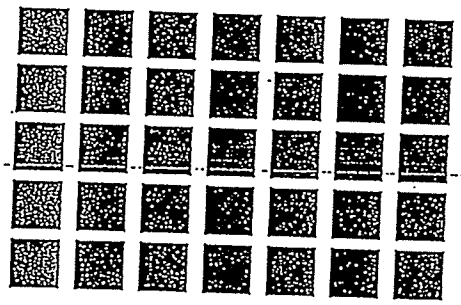


_____ toothpicks

9. Maria practiced soccer 5 days last week. She practiced 2 hours each day. How many hours did Maria practice soccer last week?

_____ hours

10. Break apart the array to show $5 \times 7 = (5 \times 2) + (5 \times 5)$.



11. Circle the symbol that makes the multiplication sentence true.

$9 \times 5 \quad \boxed{\begin{matrix} > \\ < \\ = \end{matrix}} \quad (9 \times 4) \times 1$

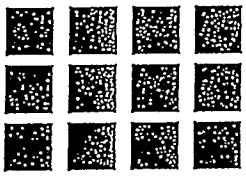
GO ON

12. Lori has 18 new stamps to add to her collection. She displays the stamps on pages of an album in groups of either 3, 6, or 9 stamps. How many different ways can she display the 18 new stamps?

_____ different ways

13. A shop owner sells 3-wheel baby strollers. She checks the air in the tires on 4 different strollers. How many tires does she check in all?

Use the array to explain how you know your answer is correct.



_____

_____

14. Max arranges all of his toy cars in 9 equal rows, with 9 cars in each row. How many toy cars does Max have?

_____ toy cars

15. Deanna, Amy, and Pam pick the same number of peaches at an orchard. They each set their peaches in 4 equal piles with 6 peaches in each pile.

Write a multiplication sentence that shows how many peaches they picked.

_____

GO ON

16. Kate is baking 5 apple pies for the bake sale. She uses 3 red apples and 2 green apples in each pie. How many apples does Kate use? Show your work.

_____

_____ apples

17. For numbers 17a–17d, select True or False for each equation.

17a. $2 \times 7 = 16$ ○ True ○ False

17b. $4 \times 7 = 21$ ○ True ○ False

17c. $6 \times 7 = 42$ ○ True ○ False

17d. $7 \times 7 = 49$ ○ True ○ False

18. Circle the number that makes the multiplication sentence true.

$10 \times \boxed{\begin{matrix} 6 \\ 7 \\ 8 \end{matrix}} = 70$

19. For numbers 19a–19d, select Yes or No to indicate whether the sum or product is equal to 9×4.

19a. $(5 \times 4) + (4 \times 4)$ ○ Yes ○ No

19b. $5 + (4 \times 5)$ ○ Yes ○ No

19c. $(3 \times 3) + (2 \times 2)$ ○ Yes ○ No

19d. $4 \times (5 + 4)$ ○ Yes ○ No

GO ON

20. A rollercoaster car can fit 6 people. How many people can fit in a rollercoaster that is 9 cars long?

_____ people

21. Write a multiplication sentence using the following numbers and symbols.

_____

22. Debbie started a table showing a multiplication pattern.

Part A

Complete the table. Describe a pattern you see in the products.

×	1	2	3	4	5	6	7	8	9	10
6	6	12	18							

_____

Part B

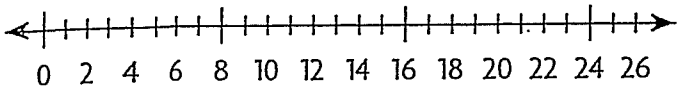
If you multiplied 6 × 73, would the product be an even number or an odd number? Use the table to explain your reasoning.

_____

_____

_____

23. Use the number line to show the product of 3 × 8.



3 × 8 = _____

4. For numbers 4a–4d, choose True or False for each equation.

4a.	$9 \times (3 + 3) = 9 \times 6$	○ True	○ False
4b.	$9 \times (4 + 4) = 9 \times 6$	○ True	○ False
4c.	$(3 \times 9) + (2 \times 9) = 9 \times 6$	○ True	○ False
4d.	$(9 \times 4) + (9 \times 2) = 9 \times 6$	○ True	○ False

5. Carmen keeps her card collection in a folder with 20 pages. Each page has 8 cards. Willie has 150 cards in his collection. Does Carmen have more, fewer, or the same number of cards as Willie?

Ⓐ She has more cards than Willie.

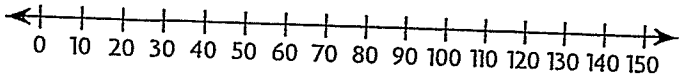
Ⓑ She has the same number of cards as Willie.

Ⓒ She has fewer cards than Willie.

6. For items 6a–6d, choose Yes or No to show whether the unknown factor is 9.

6a.	$6 \times \square = 56$	○ Yes	○ No
6b.	$\square \times 4 = 42$	○ Yes	○ No
6c.	$8 \times \square = 72$	○ Yes	○ No
6d.	$\square \times 50 = 450$	○ Yes	○ No

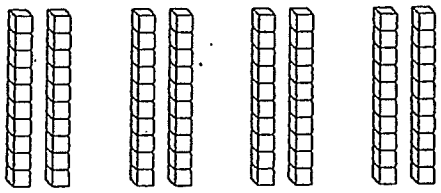
7. Each bus can carry 40 people. Use the number line to find how many people 3 buses can carry.



_____ people

GO ON

8. Neil made this multiplication model. Complete the equation that represents the model.



_____ × _____ = _____

9. A flower shop delivers fresh flower bouquets to hotels each week. Which hotel buys the least number of flowers?

Hotel	Number of Flowers in 1 Bouquet	Number of Bouquets
Welcome Inn Hotel	7	50
Wild Rose Hotel	8	60
Bayside Hotel	6	70
Hotel Ranchero	5	80

_____

10. A store has 3 crates of oranges. Each crate holds 2 boxes. Each box holds 20 oranges. What is the total number of oranges in the store?

_____ oranges

11. The new lion cub at the zoo weighs 41 pounds. He has been gaining 5 pounds every month as he grows. If this pattern continues, how much will the cub weigh 4 months from now?

_____

GO ON

12. Shelly describes a pattern. She says the pattern shown in the table is "Add 5." Is Shelly correct? Explain how you know.

Packages	1	2	3	4	5
Markers	6	12	18	24	30

13. This shows a part of a multiplication table. Find the missing numbers. Explain how you found the numbers.

28	32
35	

14. Describe a pattern for this table.

CDs	4	5	6	7	8
Minutes of Music	200	250	300	350	400

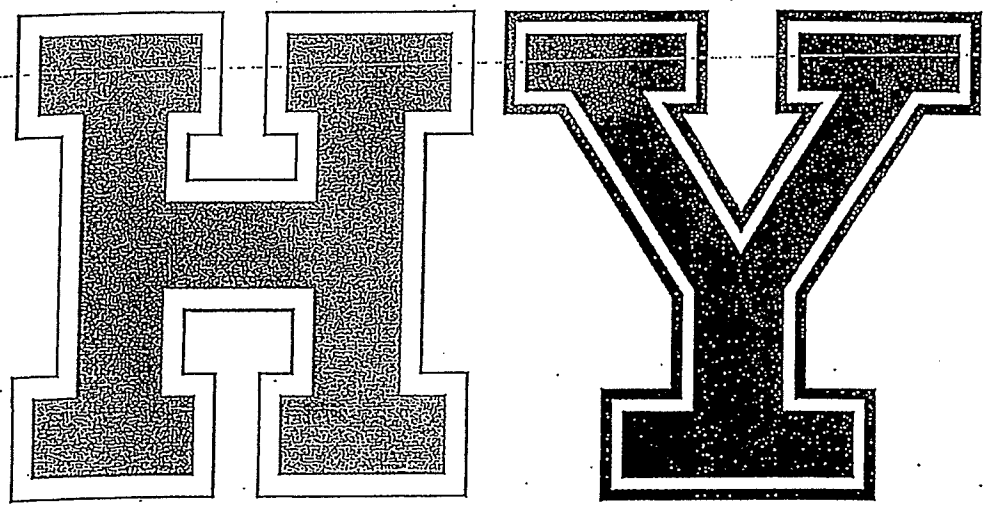
Pattern: _____

How would the table change if the pattern was "Multiply the number of CDs by 5"? Explain.

GO ON

3rd Grade

January Math Review



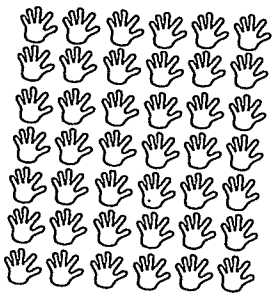
Week 2

Name: _____ Date _____

Math Review
Module 3

3.OA.5

Use the array to write 2 different multiplication equations.



____ x ____ = ____

____ x ____ = ____

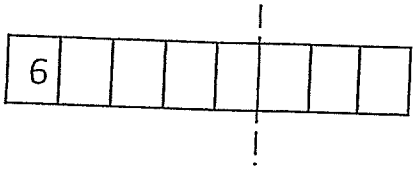
3.OA.5

Use a fives fact to help you solve 8 x 6. Use pictures, numbers or words.

3.OA.5 & 7

8 x 6 = ____

(5 x 6)= ____ (___x6) =___



8x 6=(5 + ___) x6
=(5x6) + (___x6)
= 30 + _____
= _____

3.OA.4

$5 = \_\_\_ \div 3$

3.OA.5

Count by six to solve
42 ÷6
Show work below.

3.OA.5

Count down by sixes starting with number 48.

48

____
____
____
____
____
____
____

3.OA.3

bra buys 4 sweaters for $7 each. What is e total amount Debra spends? Use the letter or the unknown.

3.OA.5

Explain how you can find the answer for 8 x 2 if you know that 2 x 8 = 16.

3.OA.5

Betty has 36 stamps in her collection. She puts 6 stamps on each page of her collection book. How many pages does she have?

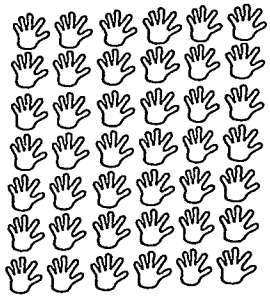
Name: _____ Date _____

Math Review

Module 3

3.OA.5

Use the array to write 2 different multiplication equations.



6 x 7 = 42

7 x 6 = 42

3.OA.5

Use a fives fact to help you solve 8 x 6. Use pictures, numbers or words.

(5 x 8) + (3 x 8) =
40 + 24 = 64

8	8	8	8	8	8	8	8

3.OA.5 & 7

8 x 6 = ___

(5 x 6)= ___ (___x6) =___

6							

8x 6=(5 + 3) x6
=(5x6) + (3x6)
= 30 + 18
= 48

3.OA.4

$5 = 15 \div 3$

3.OA.5

Count by six to solve
42 ÷6
Show work below.
7 columns

6	12	18	24	30	36	42

42 ÷6 = 7

3.OA.5

Count down by sixes starting with number 48.

48
42
36
30
24
18
12
6
0

3.OA.3

Debra buys 4 sweaters for $7 each. What is the total amount Debra spends? Use the letter P for the unknown.

4 x $7 = n
n = $28

3.OA.5

Explain how you can find the answer for 8 x 2 if you know that 2 x 8 = 16.

You can use the commutative property. because if you look at an array of 8 x 2, you will also see 2 rows of 8.

3.OA.5

Betty has 36 stamps in her collection. She puts 6 stamps on each page of her collection book. How many pages does she have?

6 pages

Name: _____ Date _____

Math Review
Module 3

3.OA.4

How can you use the skip-counting strategy to solve 42 ÷6?.

3.OA.4

Jenny cuts 9 pieces of ribbon for her costume. Each piece measures 7 inches long. What is the total length of the ribbon she cuts?

3.OA.5

Complete the following problems:

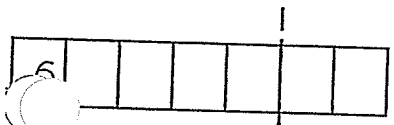
49 ÷ 7 = ____

7 x ____ = 49

3.OA.5 & 7

7 x 6 = ____

(5 x 6)= ____ (____x6) =____



7x 6=(5 + ____) x6
=(5x6) + (____x6)
= 30 + _____
=_____

3.OA.4

6 = ___ ÷ 7

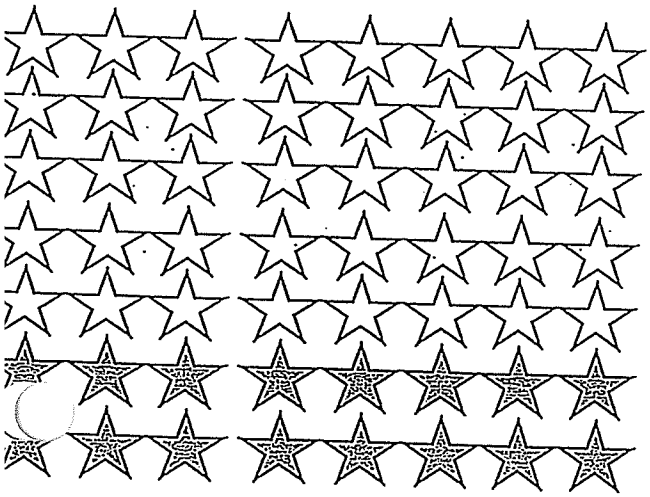
3.OA.3

Model the following problem with a drawing.

Jackie pours 6 liters of water into each beaker for her science experiment. She pours a total of 42 liters. How many beakers does she fill?

3.OA.5

7 x 8 =



5 x 8 = ____

2 x 8 = ____

40 + ____ =____
_____ x 8 = 56

8 = ___ ÷ 6

Name: _____ Date _____

Math Review
Module 3

3.OA.4

How can you use the skip-counting strategy to solve 42 ÷ 6?

If you skip count by 6's until you reach 42, you can count how many times you counted to get your answer. You will skip count 7 times and the answer to 42 ÷ 6 = 42

3.OA.4

Jenny cuts 9 pieces of ribbon for her costume. Each piece measures 7 inches long. What is the total length of the ribbon she cuts?

63 inches

3.OA.5

Complete the following problems:

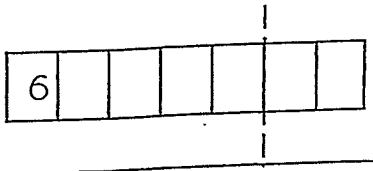
49 ÷ 7 = 7

7 x 7 = 49

3.OA.5 & 7

7 x 6 = 42

(5 x 6) = 30 (2 x 6) = 12



7x 6 = (5 + 2) x6
= (5x6) + (2 x6)
= 30 + 12
= 42

3.OA.4

6 = 42 ÷ 7

3.OA.3

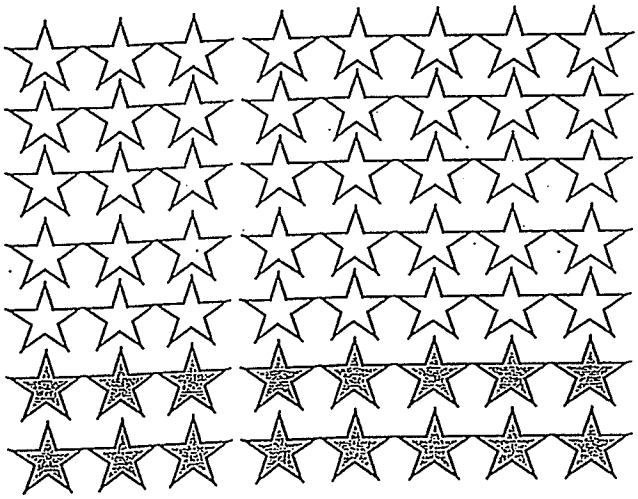
Model the following problem with a drawing.

Jackie pours 6 liters of water into each beaker for her science experiment. She pours a total of 42 liters. How many beakers does she fill?

7 beakers

3.OA.5

7 x 8 =



5 x 8 = 40

2 x 8 = 16

40 + 16 = 56
7 x 8 = 56

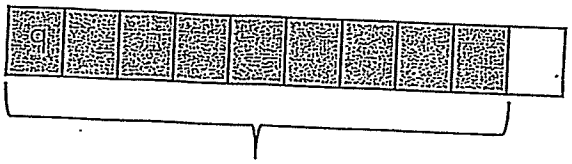
8 = 48 ÷ 6

Name: _____ Date _____

Math Review
Module 3

3.OA.4

Find the total value of the shaded blocks.



9 nines = 10 nines − 1 nine

= _____ − 9

= _____

3.OA.2

Complete the following problems:

36 ÷ 4 = ____

4 x ____ = 36

3.OA.5

Do you agree or disagree with the following equation? Explain your thinking using arrays and skip-counting.

6 x 9 = 9 x 6

3.OA.3-4

Mrs. Arnold bought $28 of cheese. How many kilograms of cheese did she buy? Draw a tape diagram, and label the amount of cheese she buys using x.

$7 for 1 kg.

3.OA.3-4

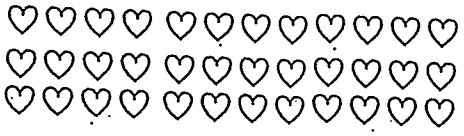
There are 9 bags of blue and red marbles. Each bag contains 8 marbles. If there are 64 blue marbles, how many red marbles are there?

3.OA.1

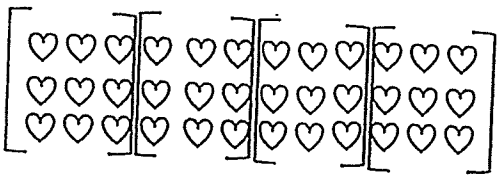
Skip count by 8's

8			
32			
6			

Use the array to complete the equation.



A. 3 x 12=___



B. (3x3) x 4 =

=___x 4

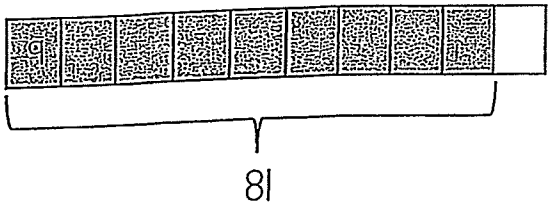
=____

Name: _____ Date _____

Math Review
Module 3

3.OA.4

Find the total value of the shaded blocks.



9 nines = 10 nines − 1 nine

= 90 − 9

= 81

3.OA.2

Complete the following problems:

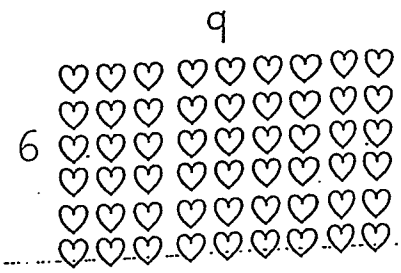
36 ÷ 4 = 9

4 x 9 = 36

3.OA.5

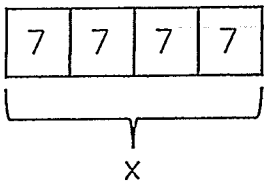
Do you agree or disagree with the following equation? Explain your thinking using arrays and skip-counting.

6 x 9 = 9 x 6



3.OA.3-4

Mrs. Arnold bought $28 of cheese. How many kilograms of cheese did she buy? Draw a tape diagram, and label the amount of cheese she buys using *x*.



$7 for 1 kg.

3.OA.3-4

There are 9 bags of blue and red marbles. Each bag contains 8 marbles. If there are 64 blue marbles, how many red marbles are there?

9 x 8 = 72

72 − 64 = 8 red marbles

3.OA.1

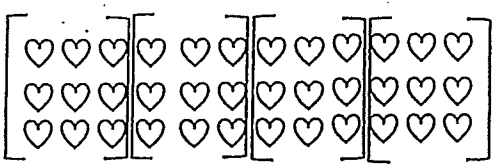
Skip count by 8's

8	16	24

32	40	48	
56	64	72	80

Use the array to complete the equation.

A. 3 x 12 = 36



B. (3x3) x 4 =

=9 x 4

= 36

Name: _____ Date _____

Math Review
Module 3

3.OA.7

The store clerk divides 45 pears into 9 baskets. Draw a tape diagram and label the number of pears in each basket as c. Write an equation and solve for C.

3.OA.5

Explain the rule of multiplying and dividing by zero.

3.OA.5

Solve for the unknown.

d x 9 = 36 d = ___

e x 9 = 45 e = ___

f x 9 = 54 f = ___

3.OA.5

Luke says that 3 x 125 =668. Use what you know about odd times odd number to explain why Luke is wrong.

3.OA.5

Bill says that 4 x 66 = 264. Use what you know about even times even number to explain why Bill could be right.

Use the RDW process for the following word problems.

Randy has 5 pieces of string that measure 9 inches long for his STEM project. His partner gives him 4 more pieces of string. Now he has a total of 81 inches of string. How much string did his partner give him?

essie spends 26 minutes on her reading homework. She then spends 5 minutes on each math problem. here are 7 math problems. How many minutes does she spend on her homework in all?

Penny has collected 215 stamps. She gave 115 stamps to her little brother. Penny then puts 10 stickers on each page of her stamp collection book. If she uses all of her remaining stamps, on how many pages did Penny put stamps?

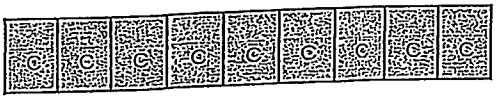
Mrs. Alan weighs 6 gel pens and 1 permanent marker for her math lesson. The total weight is 107 grams. If the permanent marker weighs 59 grams, how much does each gel pen weigh?

Name: _____ Date _____

Math Review
Module 3

3.OA.7

The store clerk divides 45 pears into 9 baskets. Draw a tape diagram and label the number of pears in each basket as *c*. Write an equation and solve for *C*.



45 ÷ 9 = c

c = 8

3.OA.5

Explain the rule of multiplying and dividing by zero.

Every time you multiply or divide by zero you will get an answer of zero. You always get zero because you the number of groups or number in each group is zero.

3.OA.5

Solve for the unknown.

d x 9 = 36 d = 4

e x 9 = 45 e = 5

f x 9 = 54 f = 6

3.OA.5

Luke says that 3 x 125 = 668. Use what you know about odd times odd number to explain why Luke is wrong.

He is wrong because anytime you multiply an odd number by an odd number you will always get an odd number for your product.

3.OA.5

Bill says that 4 x 66 = 264. Use what you know about even times an even number to explain why Bill could be right.

Bill could be right because every time you multiply two even factors, your answer will always be even.

Use the RDW process for the following word problems.

Randy has 5 pieces of string that measure 9 inches long for his STEM project. His partner gives him 4 more pieces of string. Now he has a total of 81 inches of string. How much string did his partner give him?

5 x 9 = 45

81 - 45 = 36

36 ÷ 9 = 4 pieces of string

Jessie spends 26 minutes on her reading homework. She then spends 5 minutes on each math problem. There are 7 math problems. How many minutes does she spend on her homework in all?

26 + (3 x 5)

26 + 35 =

61

Penny has collected 215 stamps. She gave 115 stamps to her little brother. Penny then puts 10 stickers on each page of her stamp collection book. If she uses all of her remaining stamps, on how many pages did Penny put stamps?

215 - 115 = 100

100 ÷ 10 = 10 pages

Mrs. Alan weighs 6 gel pens and 1 permanent marker for her math lesson. The total weight is 107 grams. If the permanent marker weighs 59 grams, how much does each gel pen weigh?

107 - 59 =

48 ÷ 6 = 8 grams

17. Beth saves all her dimes. Today she is getting them out of her coin jar and wrapping them to take to the bank. She finds she has 400 dimes. It takes 50 dimes to fill each paper wrapper and make a roll. How many wrappers does she need?

Part A

Write an equation using *n* for the unknown factor. Find the number of wrappers needed.

_____ × _____ = _____

Part B

Explain how you solved this problem and how you know your answer is correct.

_____

_____

18. Two friends have jobs at the mall. Juan works 40 hours each week and earns $9 per hour. Thomas works 50 hours per week and earns $7 per hour.

Part A

Who earns more each week? _____

Part B

Explain how you found your answer.

_____

_____

_____

_____

_____

_____

1. For numbers 1a–1d, select True or False for each equation.

1a.	$5 \div 1 = 5$	○ True	○ False
1b.	$3 \div 3 = 1$	○ True	○ False
1c.	$4 \div 1 = 1$	○ True	○ False
1d.	$0 \div 1 = 0$	○ True	○ False

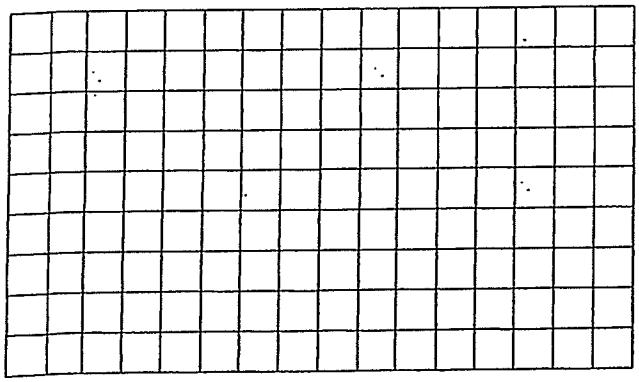
2. Elian is making 36 ounces of punch. He pours the same amount into each of 6 cups. How many ounces of punch does he pour into each cup?

Circle the amount to complete the sentence.

Elian pours | 6 / 9 / 12 / 30 | ounces of punch into each cup.

3. Gina arranges her 21 puzzles in 7 equal stacks. How many puzzles does Gina put in each stack?

Shade squares to make an array to model the problem.

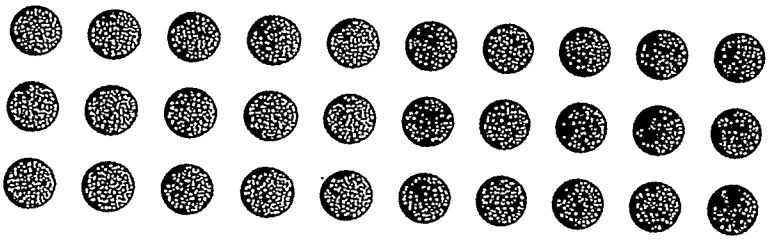


_____ puzzles

GO ON

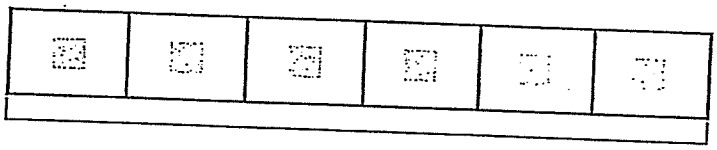
4. Philip has 30 pennies that he exchanges for nickels. He exchanges 5 pennies for each nickel. How many nickels does Philip get?

Make equal groups to model the problem.



_____ nickels

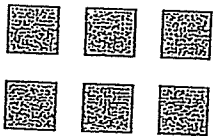
5. A book has 54 pages divided into 6 equal chapters. How many pages are in each chapter?



54 pages

_____ pages

6. Select the equations that the array represents. Mark all that apply.



Ⓐ $2 \times 4 = 8$

Ⓑ $3 \times 2 = 6$

Ⓒ $6 \div 3 = 2$

Ⓓ $2 \times 3 = 6$

Ⓔ $6 \div 2 = 3$

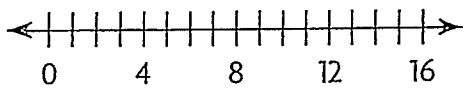
Ⓕ $8 \div 2 = 4$

GO ON

7. The 16 players at tennis camp are divided into 4 equal groups. How many players are in each group?

Part A

Draw jumps on the number line to model the problem.



Part B

Write a division equation to represent the model.

_____

_____ players

8. Max writes a total of 45 lines in his journal. Each journal entry is 9 lines long. How many journal entries does Max make?

Choose a number from the box to complete the sentence.

Max makes _____ journal entries.

4
5
6
7

9. A farmer sells baskets that hold 6 peaches each. Etta buys a total of 18 peaches. How many baskets of peaches does Etta buy?

Complete each equation to represent the problem.

$6 \times$ _____ $= 18$ $\quad\quad$ $18 \div 6 =$ _____

_____ baskets

10. Penn has 12 eggs to use in some recipes. Select a way that he could divide all of the eggs equally among the recipes. Mark all that apply.

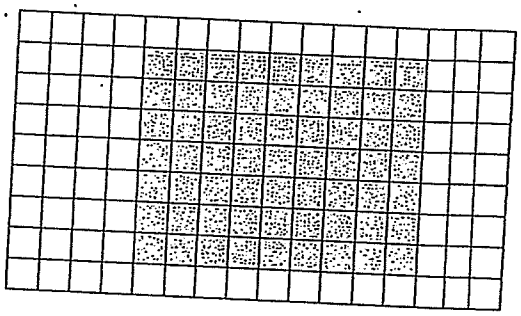
Ⓐ 6 eggs in each of 2 recipes Ⓓ 4 eggs in each of 4 recipes

Ⓑ 5 eggs in each of 3 recipes Ⓔ 2 eggs in each of 6 recipes

Ⓒ 3 eggs in each of 4 recipes Ⓕ 4 eggs in each of 3 recipes

GO ON

11. Nancy made this array to model a division equation. Which equation could Nancy have modeled? Mark all that apply.



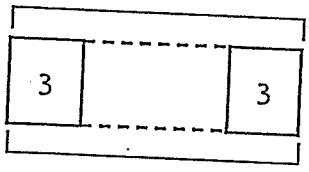
Ⓐ $63 \div 7 = 9$

Ⓑ $54 \div 6 = 9$

Ⓒ $72 \div 9 = 8$

Ⓓ $63 \div 9 = 7$

12. Rico went for a bike ride around a 3-mile loop. He rode a total of 12 miles. How many times did Rico ride his bike around the loop?



_____ times

13. Write the letter for each problem in the box next to its quotient.

Ⓐ $5 \div 5$ ☐ 0

Ⓑ $0 \div 5$ ☐ 5

Ⓒ $5 \div 1$ ☐ 1

14. Karson earns $6 each hour babysitting. Last week she earned a total of $48 babysitting. How many hours did Karson babysit last week?

Choose a number from the box.

5
6
7
8

_____ hours

GO ON

18. Circle numbers to complete the related facts.

	6				5		
	7	$\times 6 = 42$		$42 \div$	6	$= 6$	
	8				7		
	9				8		

19. Use numbers from the box to write related multiplication and division facts.

_____ × _____ = _____

_____ × _____ = _____

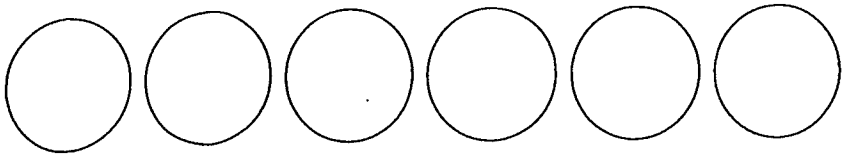
_____ ÷ _____ = _____

_____ ÷ _____ = _____

4
8
32

20. Angela plants 24 rosebushes in flowerbeds in her yard. She plants the same number of rosebushes in each of 6 flowerbeds.

How many rosebushes does Angela plant in each flowerbed? Show your work.



_____ rosebushes

1. Shang shared 28 postcards among 7 different people. Each person received the same number of postcards. How many postcards did Shang give to each person?

$$28 \div 7 = n$$
$$7 \times n = 28$$

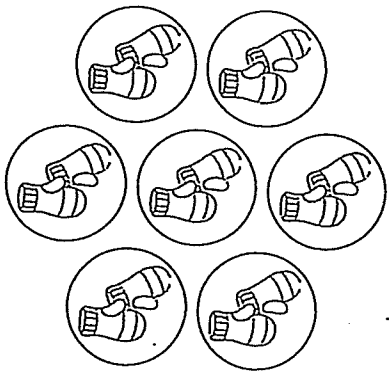
Ⓐ 4

Ⓑ 5

Ⓒ 6

Ⓓ 21

2. Lionel has 14 mittens.



Select one number from each column to show the division equation represented by the picture.

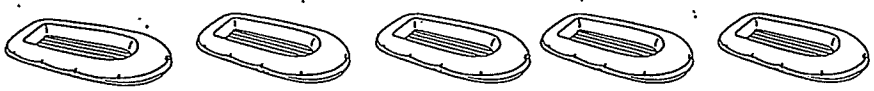
$14 \div$ ___?___ $=$ ___?___

(divisor) (quotient)

Divisor	Quotient
○ 1	○ 1
○ 2	○ 2
○ 12	○ 7
○ 14	○ 14

GO ON

3. Fifteen people are going rafting. They brought 5 rafts. An equal number of people ride in each raft. How many people will be in each raft?



_____ people

4. Circle a number for the unknown factor and quotient that makes the equation true.

$4 \times \boxed{\begin{matrix}6\\7\\8\end{matrix}} = 24$ $\qquad$ $\boxed{\begin{matrix}6\\7\\8\end{matrix}} = 24 \div 4$

5. There are 20 students in science class. There are 10 students sitting at each table. How many tables are there?

$$\begin{array}{r} 20 \\ -\ 10 \\ \hline 10 \end{array} \qquad \begin{array}{r} 10 \\ -\ 10 \\ \hline 0 \end{array}$$

Write a division equation to represent the repeated subtraction.

_____ ÷ _____ = _____

6. Complete the chart to show the quotients.

	63	72	81	90
9				

GO ON

11. Each team at a science competition has 6 players. How many teams are there if 42 players are at the competition? Explain the strategy you used to solve the problem.

_____

_____

_____

12. Carly bought 3 packs of baseball cards. Each pack had the same number of cards. She gave 5 cards to her sister. Now she has 19 cards. How many baseball cards were in each pack? Explain how you solved the problem.

_____

_____

_____

13. Andrea used 35 craft sticks to make 7 door hangers. She used the same number of craft sticks for each door hanger. How many craft sticks did Andrea use for each door hanger?

_____ craft sticks

14. For numbers 14a–14e, use the order of operations. Select True or False for each equation.

14a.	$45 \div 5 - 3 = 6$	○ True	○ False
14b.	$12 + 4 \div 4 = 13$	○ True	○ False
14c.	$3 + 7 \times 8 = 80$	○ True	○ False
14d.	$32 \div 8 \times 2 = 2$	○ True	○ False
14e.	$40 - 10 \times 3 = 10$	○ True	○ False

GO ON

18. For numbers 18a–18e, select True or False for each equation.

18a.	$18 \div 9 = 2$	○ True	○ False
18b.	$27 \div 9 = 4$	○ True	○ False
18c.	$45 \div 9 = 5$	○ True	○ False
18d.	$72 \div 9 = 7$	○ True	○ False
18e.	$81 \div 9 = 8$	○ True	○ False

19. Holly is making 4 vegetable trays for a party. She wants to divide 36 carrot sticks equally among the trays. How many carrot sticks will she put on each tray?

_____ carrot sticks

20. Hector is buying books at a book store.

Part A

He buys 2 used books and 1 new book for $26. The new book costs $18. Each used book costs the same amount. What is the price of each used book? Explain the steps you used to solve the problem.

_____

_____

Part B

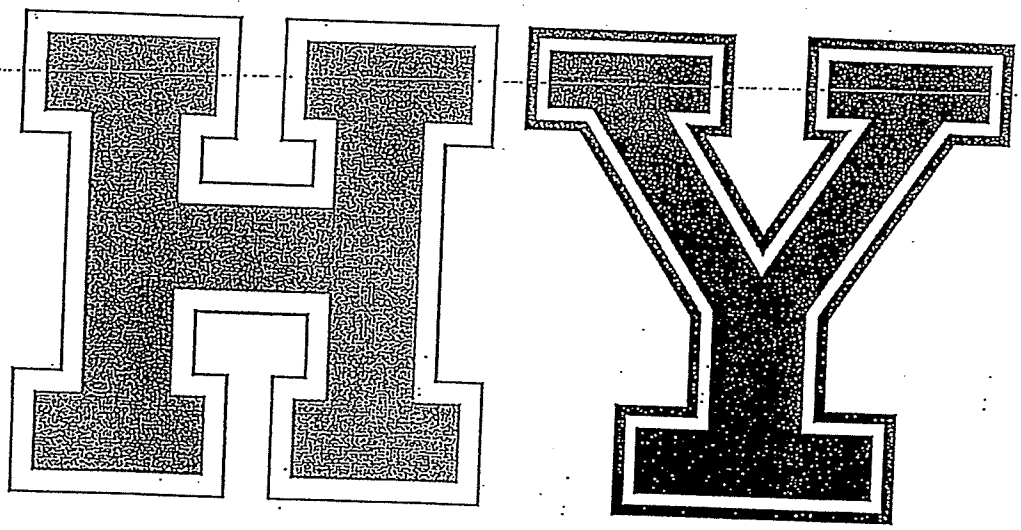
Hector also buys a reading light for $12 and 2 journals for $8 each to give as gifts. Write one equation to describe the total amount Hector spends on gifts. Explain how to use the order of operations to solve the equation.

_____

_____

3rd Grade

January Math Review



Week 3

Name: _____ Date _____

Math Review

Module 2 (1-5)

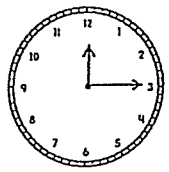
3.MD.1

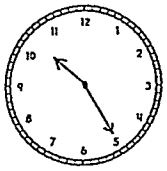
How many seconds faster did Josh finish than Luke?

Megan	14 seconds
Luke	15 seconds
Josh	12 seconds
Sam	15 seconds

3.MD.1

Write the correct time for each clock below.





3.OA.1

Complete the following problems:

3 x 4 = _____

4 x 4 = _____

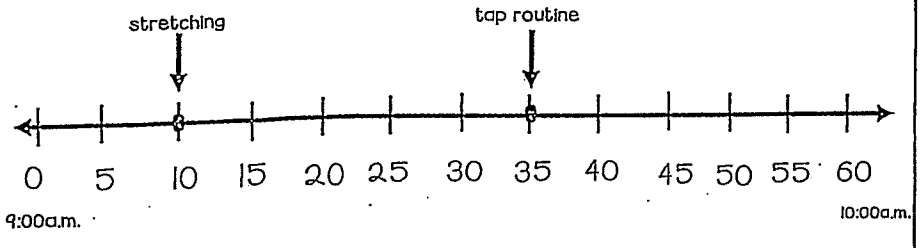
5 x 4 = _____

3.MD.1

The number line below shows a dance class that starts at 9:00a.m.

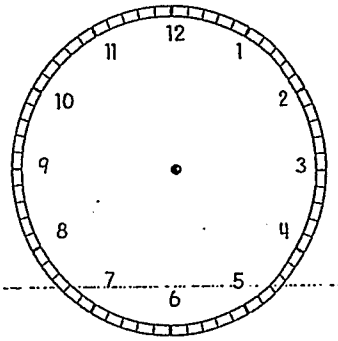
What time does stretching begin? _____

What time does the tap routine begin? _____



3.MD.1

Mrs. Andrews starts her math lesson at 8:24. Draw the hands on the clock to show what time Mrs. Andrews starts her math lesson.



3.MD.1

Use a number line to answer the problem below.

Jason's mom drops him off for piano lessons at 3:15. He finishes his lesson 40 minutes later. What time does he finish?

Jason finishes piano lessons at _____

3.MD.1

Paul practices his basketball dribbling skills for 25 minutes on Friday and 35 minutes on Saturday. How many minutes does he practice in all?

Name: _____ Date _____

Math Review

Module 2
(6-10)

3.NBT.2

Complete the input and output table below.

10 bags of sugar	1 kg.
20 bags of sugar	____ kg
40 bags of sugar	____ kg
50 bags of sugar	5 kg.

3.MD.2

Alex and Sam weigh a cell phone on a digital scale. They write down 115 but forget to record the unit. Which unit of measurement is correct, grams or kilograms? Explain your answer.

3.MD.2

Circle the correct unit of weight for each object below.

1. dog - kilogram. grams
2. lemon – kilogram. grams
3. envelope – kilogram. grams
4. bicycle– kilogram grams

3.NBT.1&2

Use the chart to answer the following questions.

1 kilogram	100 grams	10 grams	1 gram

Ashley puts a 10-gram weight on the scale. How many 1-gram weights does she need to balance the scale?

2. Ashley puts a 100-gram weight on the scale. How many 10-gram weights does she need to balance the scale?

3.NBT.1

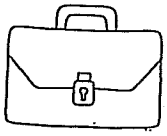
Solve.

1. 100 ÷ 10 = _____
2. 10 ÷ 1 = _____
3. 10 x 10 = _____
4. 100 x 100 = _____

3.MD.2

The weights of a briefcase and sneakers are shown below.

4 kilograms

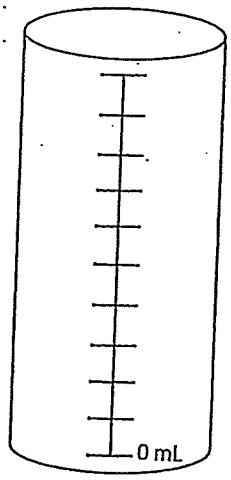


28 kilograms

1. How much heavier is the briefcase than the sneakers?
2. What is the total weight of 5 pairs of sneakers?
3. How much do 3 briefcases weigh?

3.MD.2

Label the vertical number line on the container below and answer the question.



1. What did you label as the halfway mark?

Name: _____ Date _____

Math Review

Module 2
(12-16)

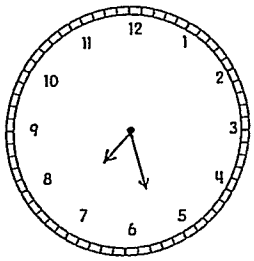
3.MD.2

Use a ruler to measure the following items. Round to the nearest 10 cm.

Long length of a folder	_____ cm
Length of paper 5 paper clips	_____cm

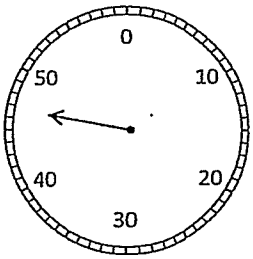
3.MD.1

The basketball games ends at 7:24. Round to the nearest 10 minutes.



3.MD.2

Mr. Ruiz's weight is shown below. Round his weight to the nearest 10 kilograms.



Mr. Ruiz's weight is _____ kg
Mr. Ruiz weighs about _____ kg.

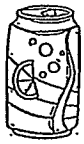
3.MD.1

Casey's basketball practice starts at 3:51 p.m. and ends at 4:30 p.m. How long is his practice?

3.NBT.1

Nora and Shelby buy a small drink and bag of chips at the concession stand. The drink weighs 72 more grams than the bag of chips. What is the weight of the drink?

34 grams



? grams

3.NBT.1

Round to the nearest 10.

278= _____

3.NBT.1

Circle the numbers that round to 300 when rounding to the nearest hundred.

345 399 400 357 320

3.NBT.1

Round to the nearest 100.

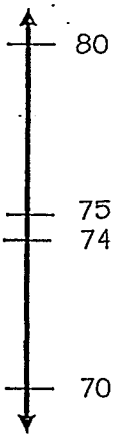
1,764 = _____

3.NBT.1

Find the sums below.

234g + 95g =

39 kg + 46kg =



Sam is making banana muffins for her classmates. After wrapping 26 muffins, she still has 25 muffins left to wrap. How many muffins did she bake altogether? Draw and label a tape diagram to show your answer.

Name: _____ Date _____

Math Review

Module 2 (17-21)

3.NBT.1

Jenna watched a movie that is 89 minutes long. She then watched an episode of her favorite show that is 35 minutes long. Estimate the total minutes she watched television.

3.MD.2

Solve the subtraction problems below.

1. 235 – 132 =

2. 347 – 235 =

3.MD.2

The total length of a ribbon is 346 cm. Caty cuts it into 3 sections. The first two sections she cuts are 189 cm. How long is the third section?

3.NBT.2

Solve the subtraction problems below.

1. 349 L – 214L =

2. 5L 234 mL – 2L 135mL =

3.NBT.1

Jett drinks chocolate milk for every meal. He drinks 219 milliliters for breakfast, 214 milliliters for lunch and 175 for dinner. Estimate the total amount of chocolate milk he drinks

3.NBT.1

Round to the nearest 10.

278= _____

3.NBT.1

Circle the numbers that round to 600 when rounding to the nearest hundred.

644 699 400 657 610

3.MD.1.

The baggage handlers at the airport begin loading luggage at 10:17 a.m. If they take 18 minutes to load every suitcase, what time do the finish?

3.NBT.1

Mr. Williams owns a candy store. He sells 34 kg of Laffy Taffy in January. He sells 48 kg in February and 52 kg in March.

1. Estimate and then find the actual total amount of Laffy Taffy he sells in the 3 months.

Estimate and then find the actual difference between the amount of Laffy Taffy he sells in March and the amount he sells in January.

Name: _____ Date _____

Math Review

Module 2
(mid-module review)

3.NB.2

Which rule did Brian use to create the Output table below.

30	40
50	60
70	80

3.MD.2/3.NBT.1

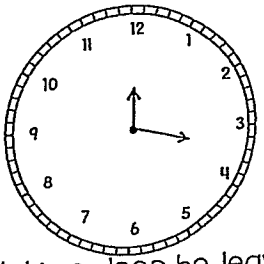
A pet hamster weighs 46 grams. A pet ferret weighs 164 grams more than the hamster. How much does the ferret weigh?

3.MD.2

Jason estimates that his laptop is about as heavy as a 4-kilogram bowling ball. Draw a tape diagram to estimate the weight of 3 laptops.

3.MD.1

George is running errands. He left his house at the time below.



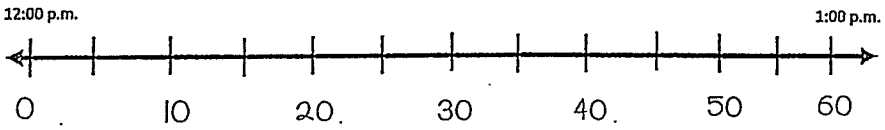
What time does he leave his house?

_____

3.MD.1

It takes George 16 minutes to get to the grocery store.

Use the number line below to figure out what time he arrives at the grocery store.



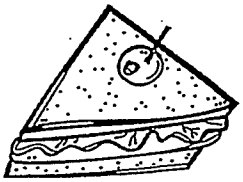
_____

3.MD.2

Kara bought 40 grams of walnuts for her banana bread. She needs 8 grams for each loaf of bread. How many loaves can she make?

3.MD.2

Faith weighs a sandwich shown below. If she wants to buy 7 sandwiches, how much will they weigh in all?



_____

3.MD.1

It takes Faiths 13 minutes to drive to the dry cleaners after the store and then 35 more minutes to get home. How many minutes does she drive?

1. Chris left to take his dog for a walk at 6:25 P.M. He returned home after 26 minutes. He talked to his neighbor for 10 minutes before going back into his house.

   Write the time that Chris got home and the time he went back into the house. Explain how you found each time.

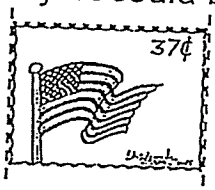
   _____

   _____

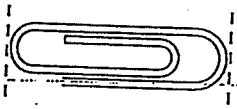
   _____

2. Kayla measured an object with an inch ruler. It was about 1 inch wide.

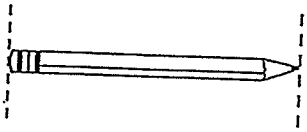
   For numbers 2a–2d, choose Yes or No to tell whether the object could be the one Kayla measured.

2a. 

○ Yes ○ No

2b. 

○ Yes ○ No

2c. 

○ Yes ○ No

2d. 

○ Yes ○ No

3. Luz left for the park at 2:27 P.M. She arrived at 3:09 P.M. How long did it take Luz to get to the park?

_____ minutes

4. Terry wakes up for school at five minutes before seven in the morning. At what time does Terry wake up?

Circle a time that makes the sentence true.

Terry wakes up at

6:55 A.M.
6:55 P.M.
7:05 A.M.
7:05 P.M.

5. Select the objects with a mass less than 1 kilogram. Mark all that apply.

Ⓐ desk

Ⓑ eyeglasses

Ⓒ eraser

Ⓓ plastic fork

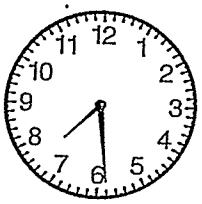
6. A batch of muffins needs to bake in the oven for 22 minutes. They need to cool for at least 15 minutes before they should be eaten. Wade puts the muffins in the oven at 10:17 A.M.

For numbers 6a–6d, select True or False for each statement.

6a.	Wade can eat the muffins at 10:39 P.M.	○ True	○ False
6b.	Wade can eat the muffins at 10:44 A.M.	○ True	○ False
6c.	Wade should take the muffins out of the oven at 10:39 P.M.	○ True	○ False
6d.	Wade should take the muffins out of the oven at 10:39 A.M.	○ True	○ False

GO ON

7. Kirk went to a friend's house after dinner. He left his house at the time shown on the clock and returned home at 8:05 P.M.



Part A

How long was Kirk gone?

_____ minutes

Part B

Explain how you found your answer.

_____

_____

_____

_____

8. Brad looked at the clock on his way to the football game.

What time is shown on Brad's clock? Mark all that apply.

Ⓐ thirteen minutes before ten

Ⓑ nine forty-seven

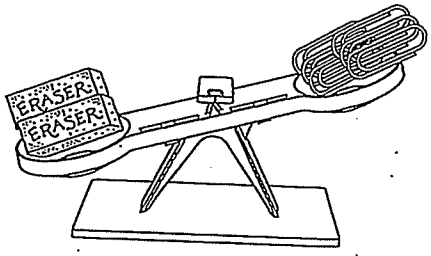
Ⓒ quarter to ten

Ⓓ nine forty

9. Andrea uses a balance scale to compare mass.

Circle a symbol that makes the comparison true.

The mass of the erasers [< > =] the mass of the paper clips.



GO ON

10. A bucket of water holds about 19 liters.

For numbers 10a–10e, choose Yes or No to tell whether the container will hold all of the water.

10a.	bath tub	○ Yes	○ No
10b.	large water bottle	○ Yes	○ No
10c.	soup bowl	○ Yes	○ No
10d.	large fish tank	○ Yes	○ No
10e.	kitchen sink	○ Yes	○ No

11. Select the animals that would be best measured in kilograms. Mark all that apply.

Ⓐ dog

Ⓑ mouse

Ⓒ goat

Ⓓ sheep

12. Luisa is planning her day on Saturday. Write the letter for each activity next to the time she plans to do it.

A	Wake up.	☐	3:30 P.M.
B	Play soccer game.	☐	8:30 P.M.
C	Eat lunch.	☐	7:30 A.M.
D	Go to a movie.	☐	12:30 P.M.
E	Go to bed.	☐	9:00 A.M.

GO ON

13. Stephen has 28 teaspoons of lemon juice. He uses 5 teaspoons of juice for each glass of lemonade he makes. He adds 2 teaspoons of juice to each glass of iced tea he makes.

Stephen makes 4 glasses of lemonade. Does he have enough lemon juice to make 4 glasses of iced tea? Explain how you solved the problem.

_____

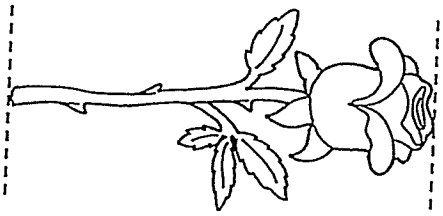
_____

_____

14. Use an inch ruler to measure.

Part A

What is the length of the flower to the nearest fourth-inch?



_____ inches

Part B

Explain how your answer would change if you measured the length of the flower to the nearest inch instead of fourth-inch.

_____

15. A football game begins at 11:32 A.M. The game lasts 3 hours 16 minutes. When does the game end?

_____

16. Alicia buys two packets of flower seeds. She buys a total of 75 grams of seeds. Select the packets she buys.

25g	30g	35g	45g
Ⓐ	Ⓑ	Ⓒ	Ⓓ

GO ON

17. Mr. Barton measures the screws on his workbench. He records the measurements in a chart.

Number of Screws	Length in Inches
1	$\frac{1}{2}$ inches
2	1 inches
2	$1\frac{1}{2}$ inches
1	$2\frac{1}{2}$ inches
_____	_____

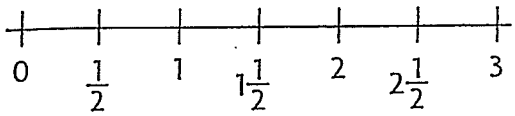
Part A

Mr. Barton found another screw. Use an inch ruler to measure. Record the measurement in the chart.

_____ inches

Part B

Complete the line plot to show the data in the chart. How many screws are longer than 2 inches? Tell how you know.



Length of Screw Measured to the Nearest Half Inch

_____

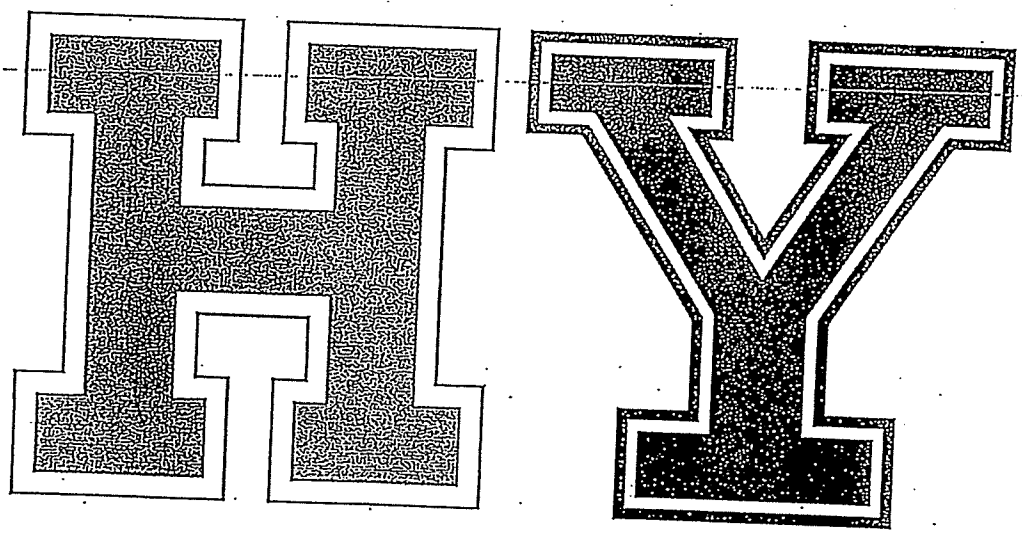
_____

18. Abby fills a mug with hot cocoa. Is the amount of cocoa *more than 1 liter, about 1 liter,* or *less than 1 liter*? Explain how you know.

_____

_____

3rd Grade January Math Review



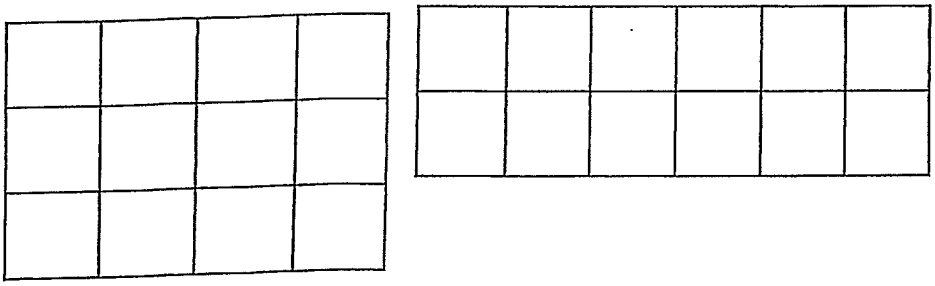
Week 4

Name: _____ Date _____

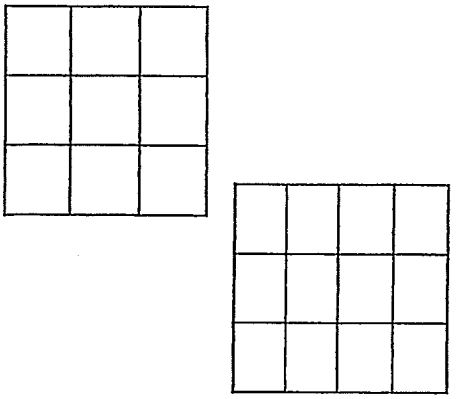
Math Review

Module 4

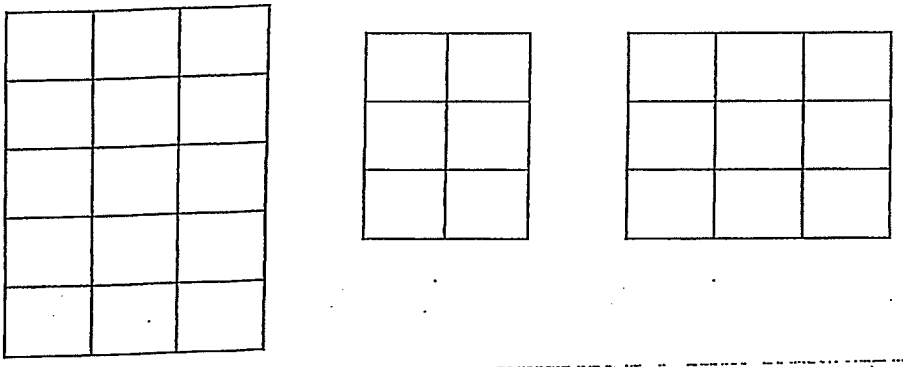
Each ☐ is 1 square unit. Do both rectangles have the same area? Why or why not?



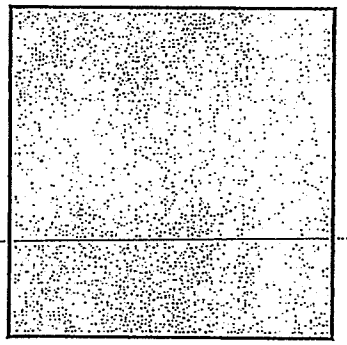
Circle the rectangle that has an area of 9 square units?



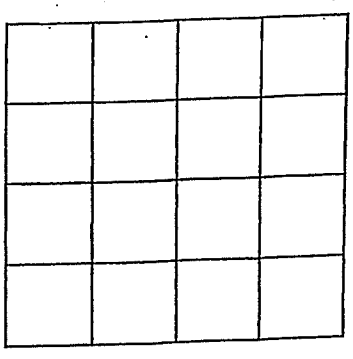
Write the area for each rectangle below.



Use a ruler to measure the side lengths of the rectangle in centimeters. Then find the total area.



Mary uses square centimeter tiles to find the area of the rectangle below. Label each side length. Then count the tiles to find the area.



Multiply to find the product.

1. 7 x 5 = _____
2. 4 x 8 = _____
3. 3 x 9 = _____
4. 4 x 9 = _____
5. 5 x 10 = _____

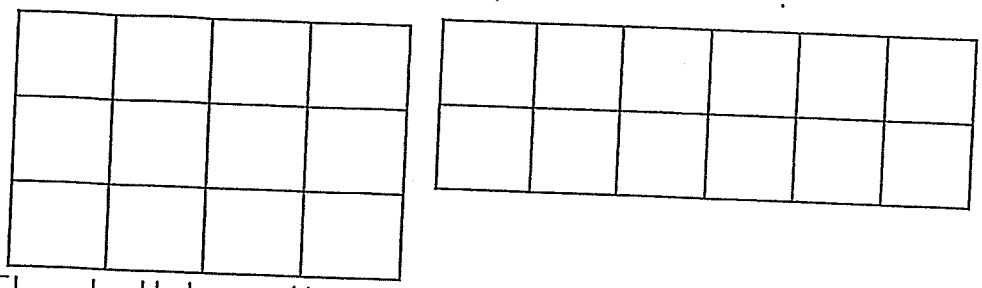
Divide to find the quotient

1. 56 ÷ 8 = _____
2. 81 ÷ 9 = _____
3. 36 ÷ 6 = _____
4. 36 ÷ 9 = _____
5. 25 ÷ 5 = _____

Name: _____ Date _____

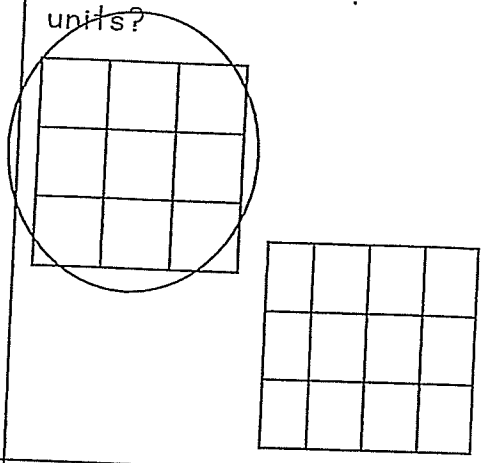
Math Review
Module 4

Each ☐ is 1 square unit. Do both rectangles have the same area? Why or why not?

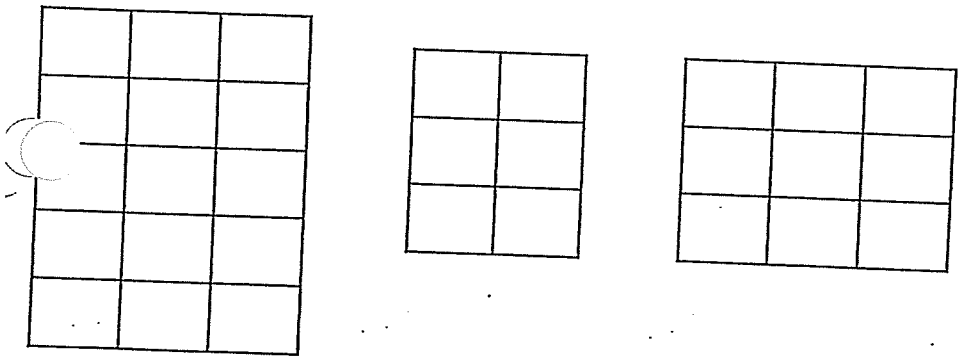


They both have the same area because they both have the 12 square units.

Circle the rectangle that has an area of 9 square units?

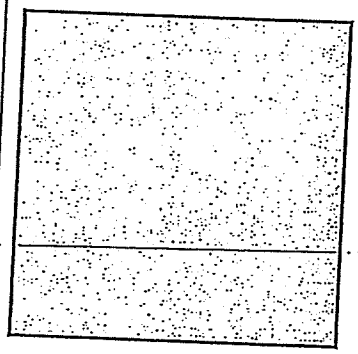


Write the area for each rectangle below.

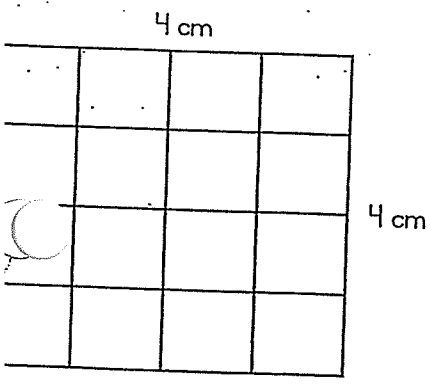


15 square units 6 square units 9 square units

Use a ruler to measure the side lengths of the rectangle in centimeters. Then find the total area.



ary uses square centimeter es to find the area of the ctangle below. Label each side ıgth. Then count the tiles to ıd the area.



16 square centimeters

Multiply to find the product.

1. $7 \times 5 = 35$
2. $4 \times 8 = 32$
3. $3 \times 9 = 27$
4. $4 \times 9 = 36$
5. $5 \times 10 = 50$

Divide to find the quotient

1. $56 \div 8 = 7$
2. $81 \div 9 = 9$
3. $36 \div 6 = 6$
4. $36 \div 9 = 4$
5. $25 \div 5 = 5$

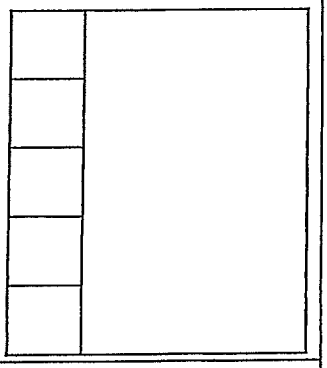
Name: _____ Date _____

Math Review
Module 4

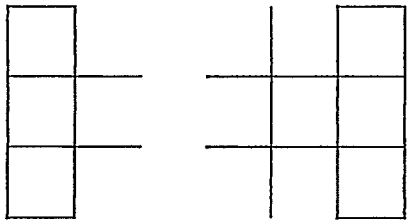
Kelsey makes a rectangle with 49 square inch tiles. She arranges them in 7 equal rows. What are the side lengths of her rectangle? Use words, pictures, and numbers to support your answer.

Area = _____ sq. cm.

_____ x _____ = _____

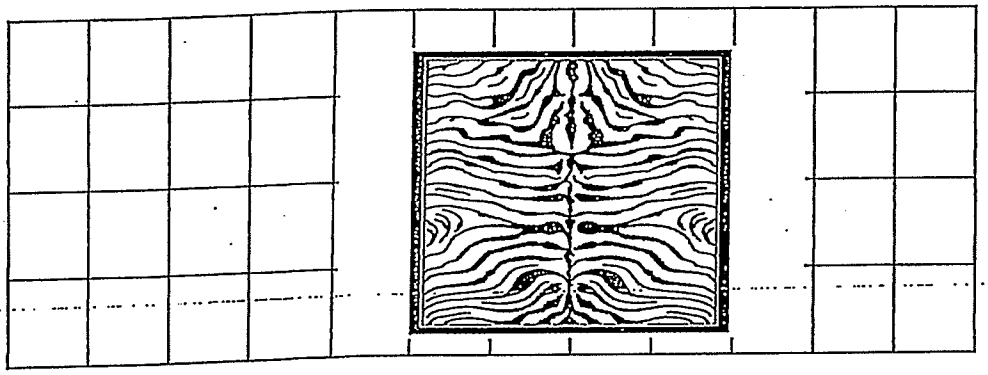


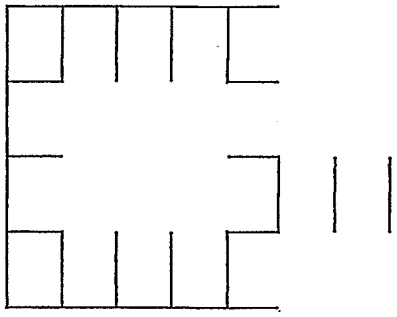
Draw to find the number of rows and columns in each array. Then, fill in the blanks to make a true equation to find each array's area.



_____ x _____ = _____

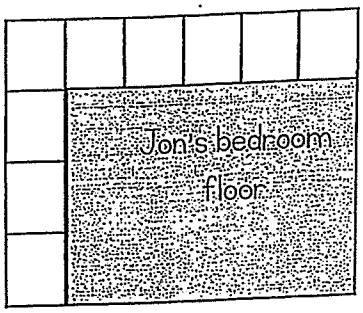
The tile floor in Esin's restaurant has a rug on it shown below. How many square tiles are on the floor, including the tiles under the rug?





_____ x _____ = _____

The area of Jon's bedroom floor is shown on the grid. Each square equals 1 square foot. How many total square feet is his bedroom floor?



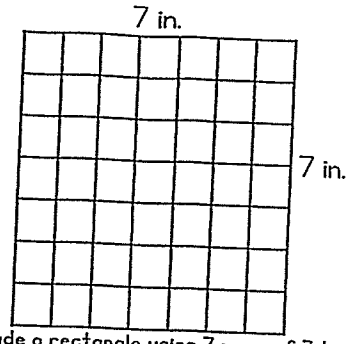
Alex draws a 21 square centimeter rectangle. What are the possible side lengths?

Lisa's bedroom measures 8 feet by 7 feet. Her sister's bedroom measures 9 feet by 6 feet. Do they have the same size bedroom? How do you know?

Name: _____ Date _____

Math Review
Module 4

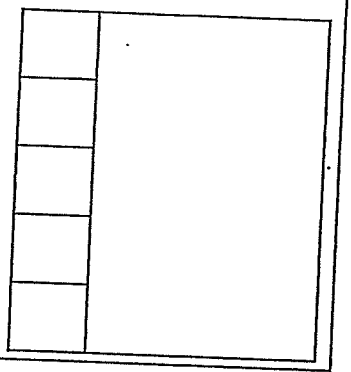
.sey makes a rectangle with 49 square inch tiles. She arranges them in 7 equal rows. What are the side lengths of her rectangle? Use words, pictures, and numbers to support your answer.



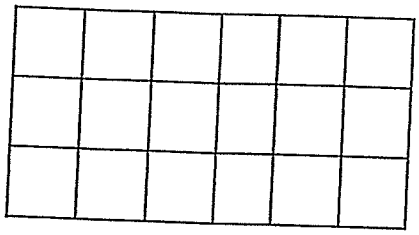
Kelsey made a rectangle using 7 rows of 7 to equal 49 total square inches.

Area = 20sq. cm.

5 x 4 = 20

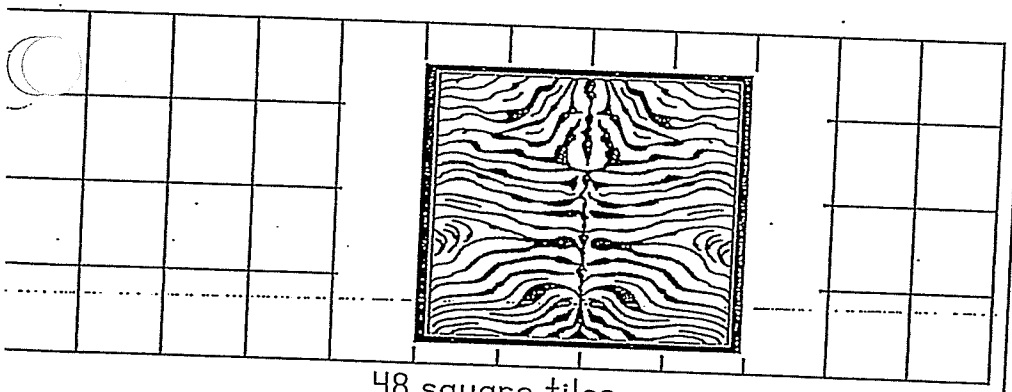


Draw to find the number of rows and columns in each array. Then, fill in the blanks to make a true equation to find each array's area.

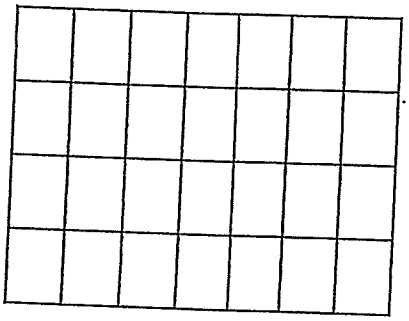


3 x 6 = 18 square units

The tile floor in Esin's restaurant has a rug on it shown below. How many square tiles are on the floor, including the tiles under the rug?



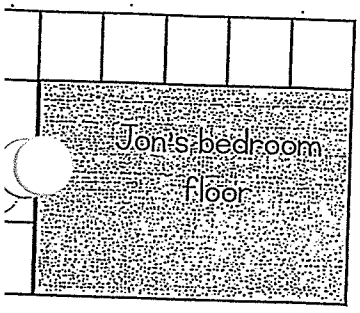
48 square tiles



4 x 7 = 28 square units

he area of Jon's bedroom floor s shown on the grid. Each square quals 1 square foot. How many otal square feet is his bedroom loor?

square feet.



Alex draws a 21 square centimeter rectangle. What are the possible side lengths?

3 cm by 7 cm
1 cm by 21 cm

Lisa's bedroom measures 8 feet by 7 feet. Her sister's bedroom measures 9 feet by 6 feet. Do they have the same size bedroom? How do you know?

8 x 7 = 56 sq. feet
9 x 6 = 54 sq. feet

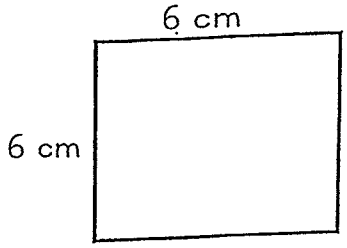
They are not the same size because they do not have the same area. Lisa's bedroom is larger by 2 feet.

Name: _____ Date _____

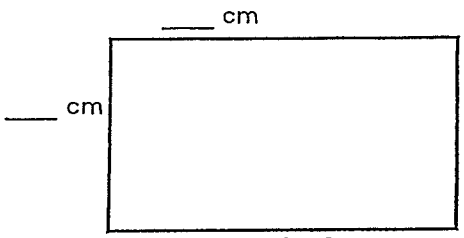
Math Review

Module 4

Find the area of the rectangle below.



The rectangle below has the same area as the rectangle in Problem A. Add the parentheses to find the unknown side lengths.



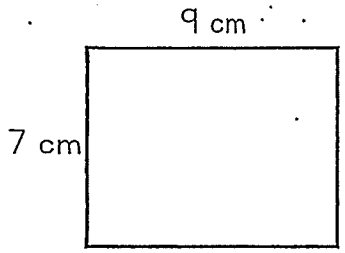
Area: 6 x6

6 x 6 = 3 x 2 x 6

= ___ x ___

= _____

Find the area of the rectangle below.



Tara says a 3cm by 21 cm rectangle has the same area. Place parentheses in the equation to find the related fact and solve. Is Tara correct? Why or why not?

3 x 21 = 3 x 3 x 7

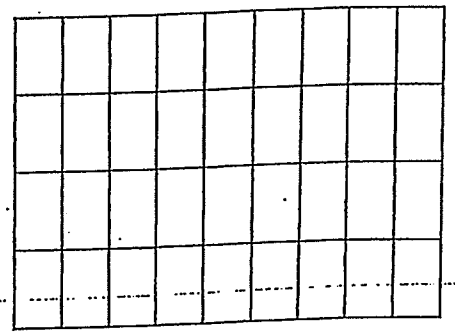
= 3 x 3 x 7

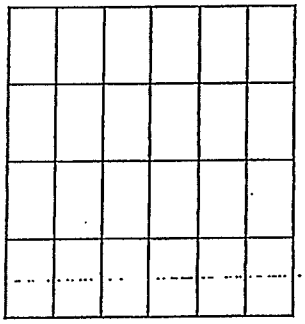
= ____ x ____

= _____

Area = _____sq. cm.

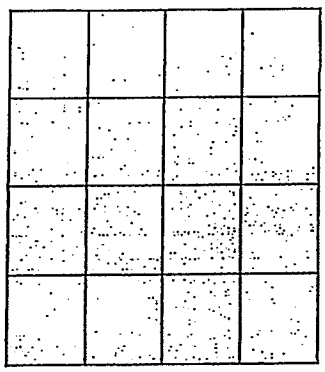
Finley and Conrad use square centimeters to make the rectangles below. Label the side lengths and find the area of both.



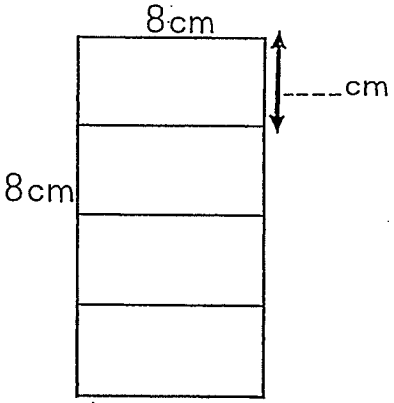


Each side of a bookmark measures 8 centimeters. What is the area of the bookmark?

Sarah tiles the rectangle below using her square pattern blocks. Find the area in square units.



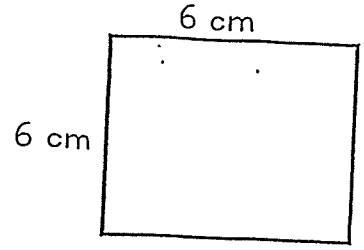
Jesse glues 4 identical pieces of paper as shown below and makes a rectangle. Find the unknown side length of 1 piece of paper.



Date _____

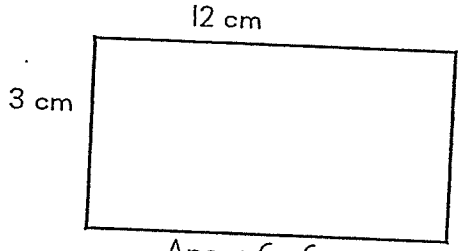
Math Review
Module 4

...d the area of the rectangle below.



36 square cm.

The rectangle below has the same area as the rectangle in Problem A. Add the parentheses to find the unknown side lengths.



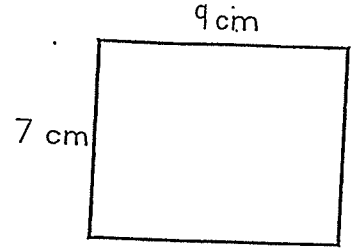
Area: 6 x6

6 x 6 = 3 x (2x6)

= 3 x 12

= 36

Find the area of the rectangle below.



Tara says a 3cm by 21 cm rectangle has the same area. Place parentheses in the equation to find the related fact and solve. Is Tara correct? Why or why not?

3 x 21 = 3 x 3 x 7

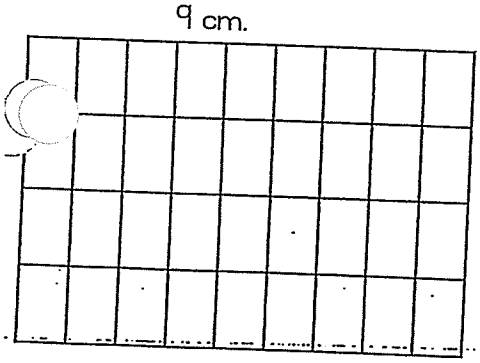
= (3 x 3) x 7

= 9 x 7

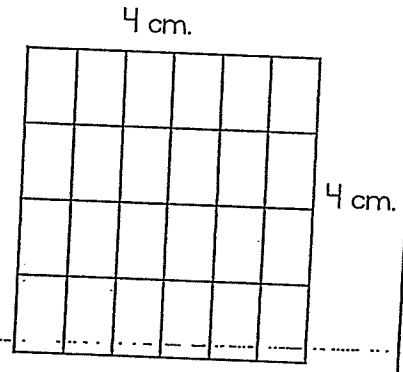
= 63

Area = 63 sq. cm.

Finley and Conrad use square centimeters to make the rectangles below. Label the side lengths and find the area of both.



36 sq. cm.

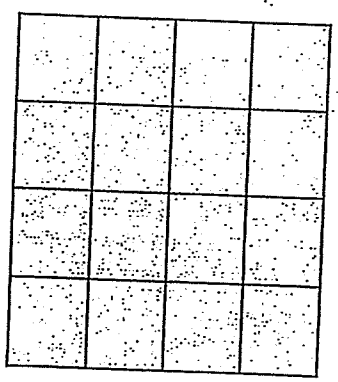


16 sq. cm.

...ach side of a bookmark ...easures 8 centimeters. What is ...he area of the bookmark?

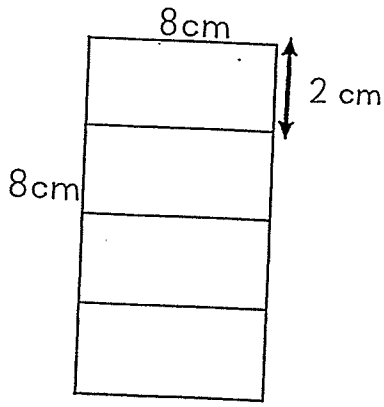
... x 8 = 32 square centimeters

Sarah tiles the rectangle below using her square pattern blocks. Find the area in square units.



16 sq. units

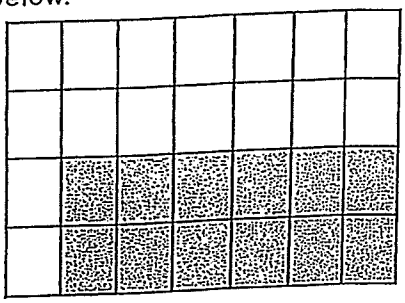
Jesse glues 4 identical pieces of paper as shown below and makes a rectangle. Find the unknown side length of 1 piece of paper.



Name: _____ Date _____

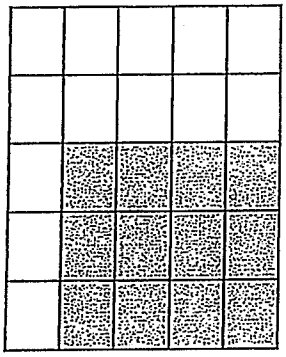
Math Review
Module 4

Circle the equation that tells you the area of the shaded rectangle below.



7 x 4 2 x 6 3 x 6

Find the area of the shaded figure below.

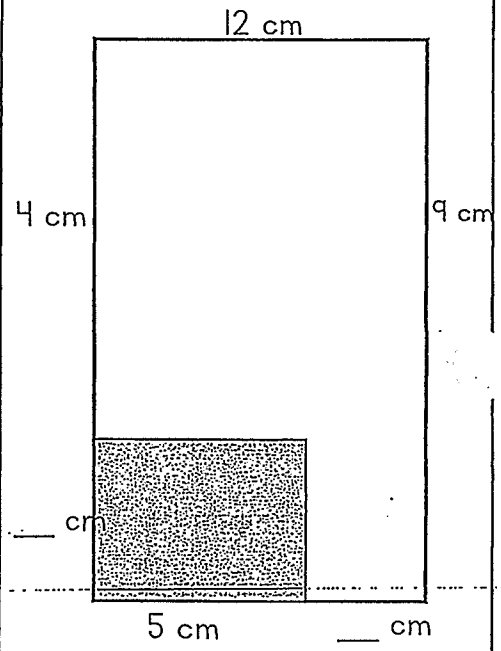


Label the unknown measurements.

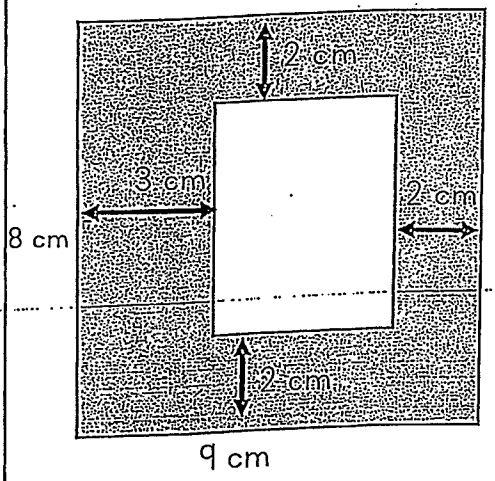
Area of small rectangle:

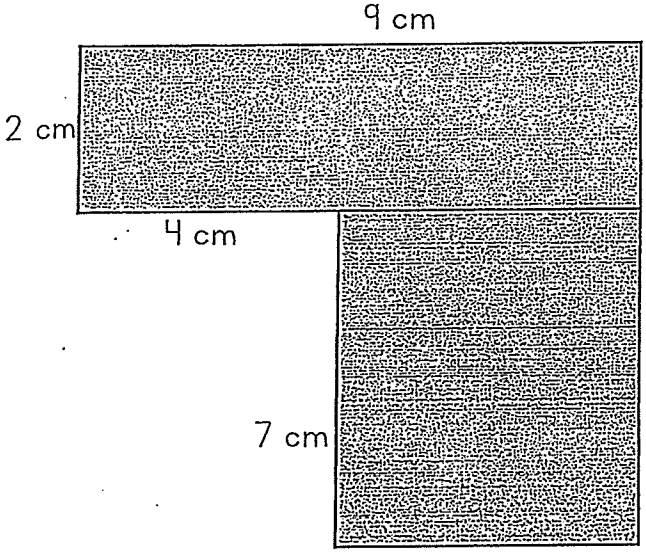
_____cm x _____ cm = _____ sq. cm.

Find the area of the shaded figure.

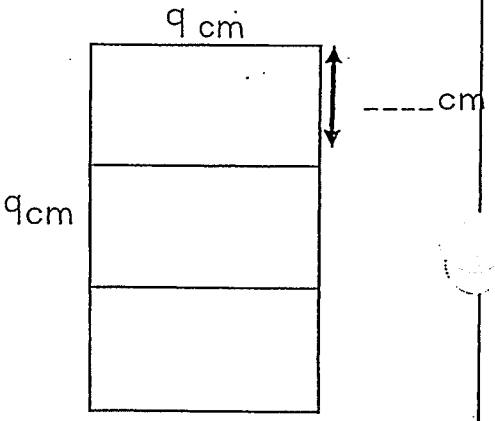


Find the area of each of the following figures. Each figure is made up of rectangles.





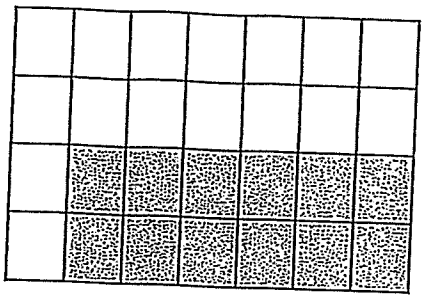
Jesse glues 3 identical pieces of paper as shown below and makes a square. Find the unknown side length of 1 piece of paper.



Name: _____ Date _____

Math Review
Module 4

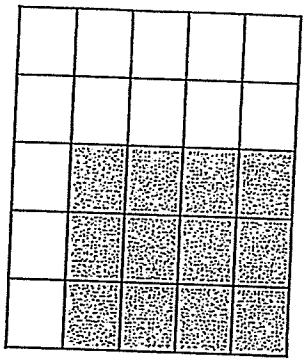
Circle the equation that tells you the area of the shaded rectangle below.



7 x 4 (2 x 6) 3 x 6

Find the area of the shaded figure below.

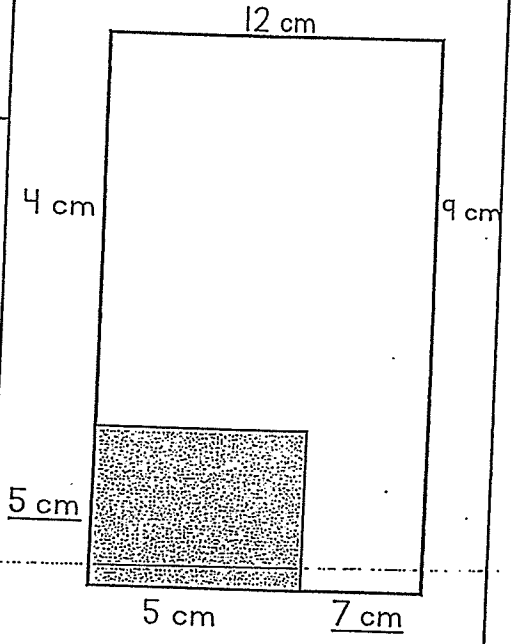
4 x 3 = 12 square units



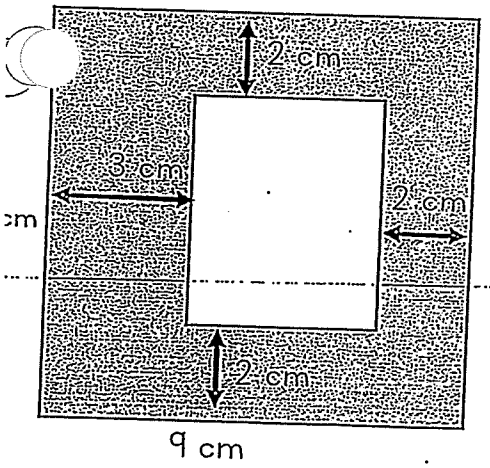
Label the unknown measurements.

Area of small rectangle:
5 cm x 5 cm = 25 sq. cm.

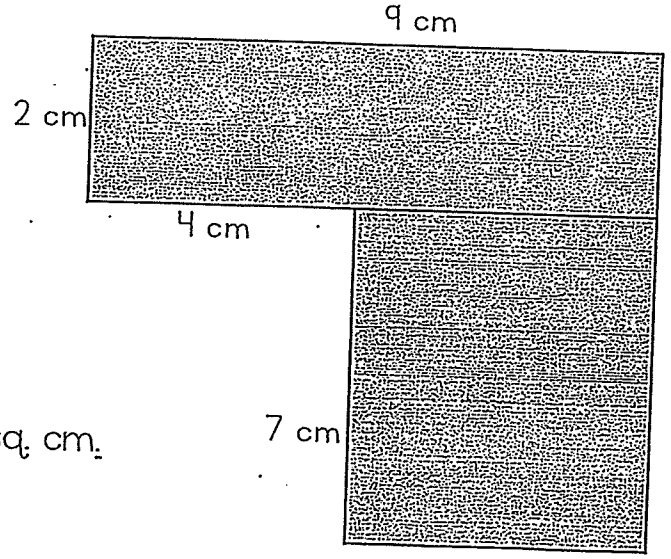
Find the area of the shaded figure.
25 square centimeters



Find the area of each of the following figures. Each figure is made up of rectangles.

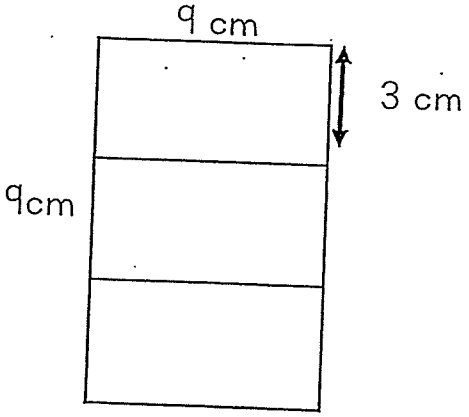


8 x 9 = 72
- 4 x 4 = 72 - 16
= 56 sq. cm.



2 x 9 = 18
7 x 5 = 35
= 53 sq. cm.

Jesse glues 3 identical pieces of paper as shown below and makes a square. Find the unknown side length of 1 piece of paper.



Name _____

Area of Combined Rectangles

Essential Question How can you break apart a figure to find the area?

Common Core **Measurement and Data—**
3.MD.C.7c, 3.MD.C.7d
Also 3.MD.C.5, 3.MD.C.5a, 3.MD.C.5b, 3.MD.C.7b, 3.OA.A.3, 3.OA.B.5, 3.OA.C.7, 3.NBT.A.2

MATHEMATICAL PRACTICES
MP1, MP3, MP4, MP6, MP7

Unlock the Problem (Real World)

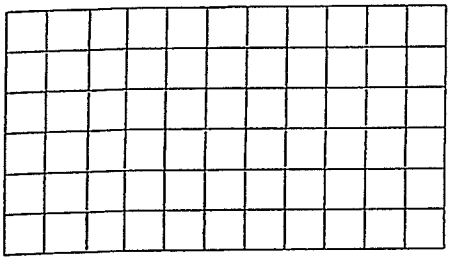
Hands On

Anna's rug has side lengths of 4 feet and 9 feet. What is the area of Anna's rug?

Activity **Materials** ■ square tiles

STEP 1 Use square tiles to model 4 × 9.

STEP 2 Draw a rectangle on the grid paper to show your model.



STEP 3 Draw a vertical line to break apart the model to make two smaller rectangles.

The side length 9 is broken into ____ plus ____.

STEP 4 Find the area of each of the two smaller rectangles.

Rectangle 1: ____ × ____ = ____

Rectangle 2: ____ × ____ = ____

STEP 5 Add the products to find the total area.

____ + ____ = ____ square feet

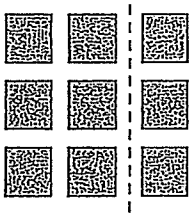
STEP 6 Check your answer by counting the number of square feet.

____ square feet

So, the area of Anna's rug is ____ square feet.

Remember

You can use the Distributive Property to break apart an array.



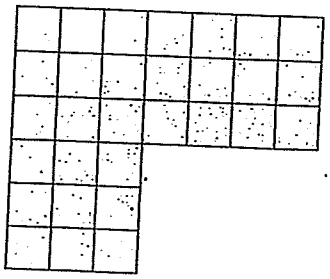
$3 \times 3 = 3 \times (2 + 1)$

Math Talk **MATHEMATICAL PRACTICES 6**

Compare Did you draw a line in the same place as your classmates? Explain why you found the same total area.

CONNECT Using the Distributive Property, you found that you could break apart a rectangle into smaller rectangles, and add the area of each smaller rectangle to find the total area.

How can you break apart this figure into rectangles to find its area?



One Way Use a horizontal line.

STEP 1 Write a multiplication equation for each rectangle.

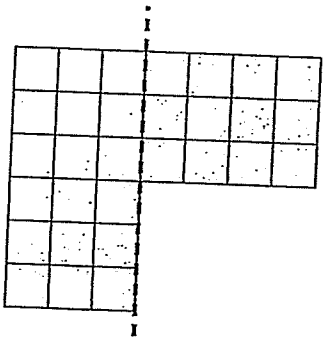
Rectangle 1: ___ × ___ = ___

Rectangle 2: ___ × ___ = ___

STEP 2 Add the products to find the total area.

___ + ___ = ___ square units

Another Way Use a vertical line.



STEP 1 Write a multiplication equation for each rectangle.

Rectangle 1: ___ × ___ = ___

Rectangle 2: ___ × ___ = ___

STEP 2 Add the products to find the total area.

___ + ___ = ___ square units

So, the area is _____ square units.

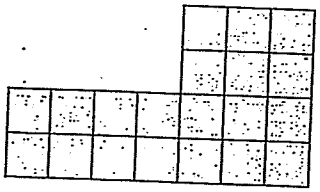
Math Talk MATHEMATICAL PRACTICES 1

Evaluate How can you check your answer?

Share and Show MATH BOARD

1. Draw a line to break apart the figure into rectangles. Find the total area of the figure.

Think: I can draw vertical or horizontal lines to break apart the figure to make rectangles.



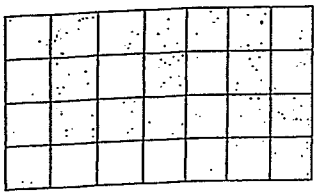
Rectangle 1: ___ × ___ = ___

Rectangle 2: ___ × ___ = ___

___ + ___ = ___ square units

Name _____

Use the Distributive Property to find the area. Show your multiplication and addition equations.

2. 

_____

_____ square units

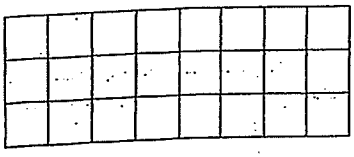
3. 

_____

_____ square units

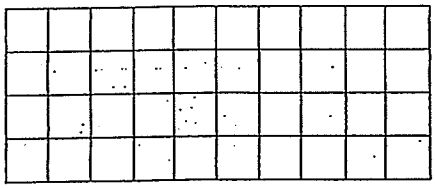
On Your Own

Use the Distributive Property to find the area. Show your multiplication and addition equations.

4. 

_____

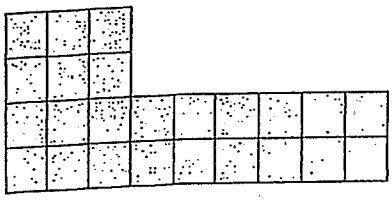
_____ square units

5. 

_____

_____ square units

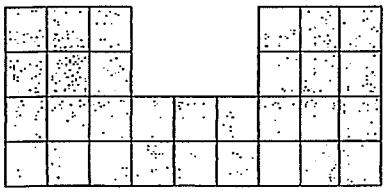
Draw a line to break apart the figure into rectangles. Find the area of the figure.

6. 

Rectangle 1: ___ × ___ = ___

Rectangle 2: ___ × ___ = ___

___ + ___ = ___ square units

7. GO DEEPER 

Rectangle 1: ___ × ___ = ___

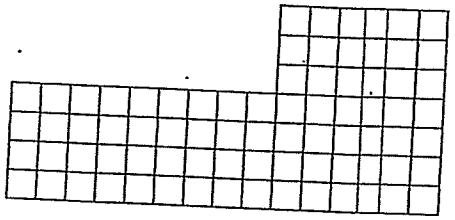
Rectangle 2: ___ × ___ = ___

Rectangle 3: ___ × ___ = ___

___ + ___ + ___ = ___ square units

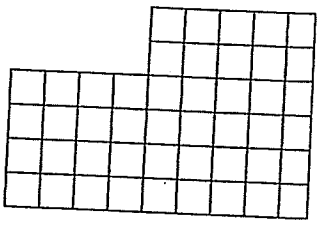
Problem Solving • Applications (Real World)

8. GO DEEPER! A model of Ms. Lee's classroom is at the right. Each unit square is 1 square foot. Draw a line to break apart the figure into rectangles. What are the areas of the two rectangles? What is the total area of Ms. Lee's classroom?



_____

9. David has a rectangular bedroom with a rectangular closet. Each unit square is 1 square foot. Draw a line to break apart the figure into rectangles. What is the total area of David's bedroom?



_____

10. THINK SMARTER! Explain how to break apart the figure to find its area.

_____

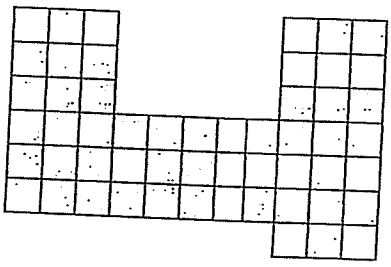
_____

_____

_____

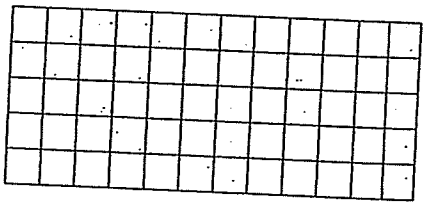
_____

Math Spot



1 unit square = 1 square meter

11. MATHEMATICAL PRACTICES 4 **Interpret a Result** Use the Distributive Property to find the area of the figure at the right. Write your multiplication and addition equations.



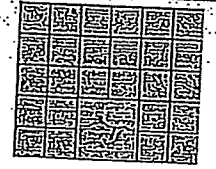
_____

_____

1 unit square = 1 square centimeter

Personal Math Trainer

12. THINK SMARTER! Pete drew a diagram of his backyard on grid paper. Each unit square is 1 square meter. The area surrounding the patio is grass.



How much more of the backyard is grass than patio? Show your work.

_____ more square meters

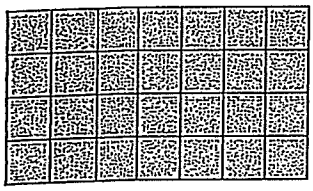
Name _____

Area of Combined Rectangles

Common Core

COMMON CORE STANDARDS—3.MD.C.7c, 3.MD.C.7d *Geometric measurement: understand concepts of area and relate area to multiplication and to addition.*

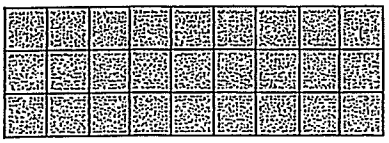
Use the Distributive Property to find the area. Show your multiplication and addition equations.

1. 

$4 \times 2 = 8; 4 \times 5 = 20$

$8 + 20 = 28$

28 square units

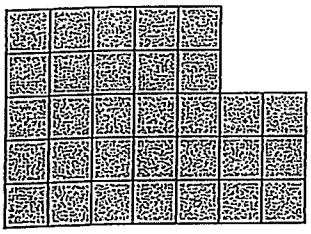
2. 

_____

_____

_____ square units

Draw a line to break apart the shape into rectangles. Find the area of the shape.

3. 

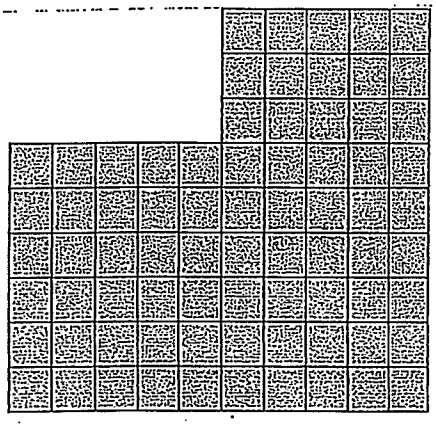
Rectangle 1: _____ × _____ = _____

Rectangle 2: _____ × _____ = _____

_____ + _____ = _____ square units

Problem Solving (Real World)

A diagram of Frank's room is at right. Each unit square is 1 square foot.



4. Draw a line to divide the shape of Frank's room into rectangles.

5. What is the total area of Frank's room?

_____ square feet

6. WRITE ▷ *Math* · Draw a figure that is not a rectangle and find its area. Use grid paper and show each step.

_____

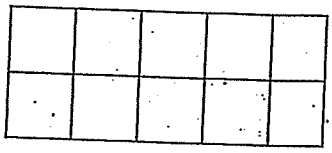
_____

Name _____

Share and Show

MATH BOARD

1. Count to find the area of the figure. Each unit square is 1 square centimeter.



Think: Are there any gaps? Are there any overlaps?

There are _____ unit squares in the figure.

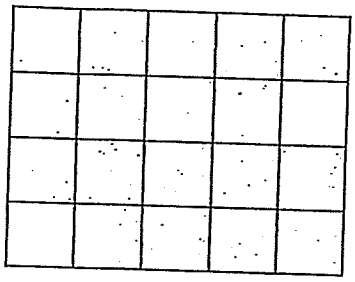
So, the area is _____ square centimeters.

Math Talk MATHEMATICAL PRACTICES 2

Use Reasoning How can you use square centimeters to find the area of different figures?

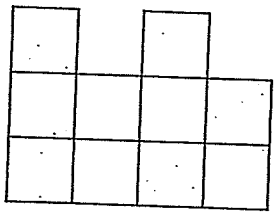
Count to find the area of the figure. Each unit square is 1 square centimeter.

2.



Area = _____ square centimeters

3.

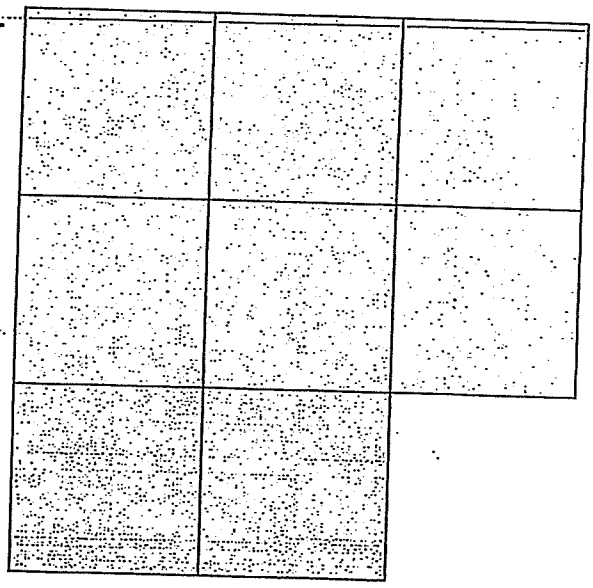


Area = _____ square centimeters

On Your Own

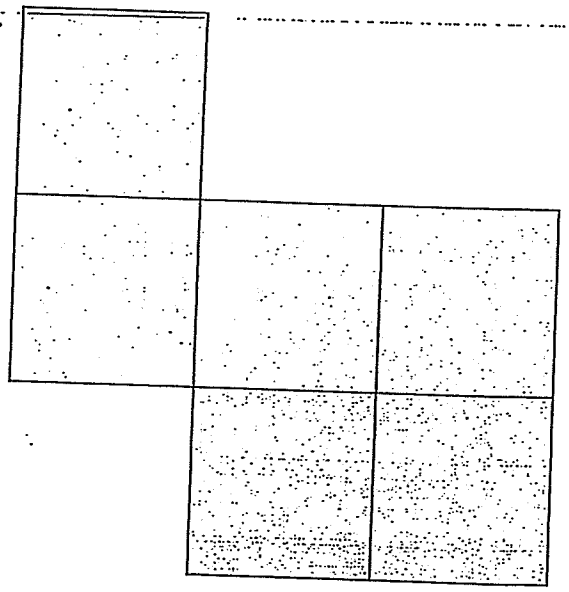
Count to find the area of the figure. Each unit square is 1 square inch.

4.



Area = _____ square inches

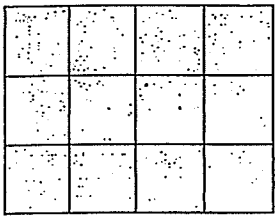
5.



Area = _____ square inches

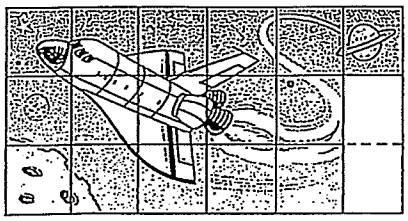
Problem Solving • Applications (Real World)

6. MATHEMATICAL PRACTICES 4 **Use a Diagram** Danny is placing tiles on the floor of an office lobby. Each tile is 1 square meter. The diagram shows the lobby. What is the area of the lobby?



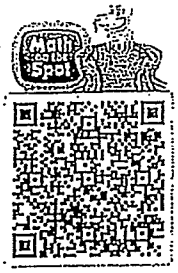
_____

7. GO DEEPER! Angie is painting a space shuttle mural on a wall. Each section is one square foot. The diagram shows the unfinished mural. How many more square feet has Angie painted than NOT painted on her mural?

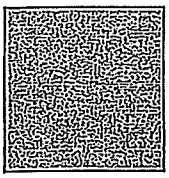


_____

8. THINK SMARTER You measure the area of a table top with blue unit squares and green unit squares. Which unit square will give you a greater number of square units for area? **Explain.**



Rectangle *A*



_____

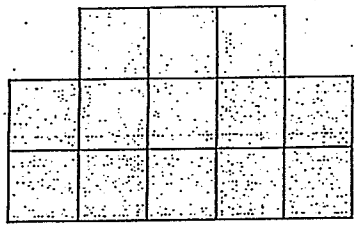
_____

_____

_____

9. THINK SMARTER How many squares need to be added to this figure so that it has the same area as a square with a side length of 5 units?

_____ squares



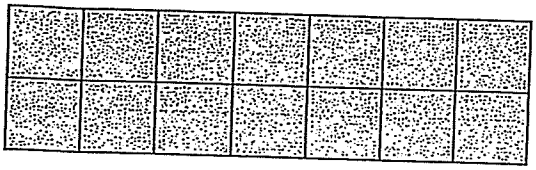
Name _____

Measure Area

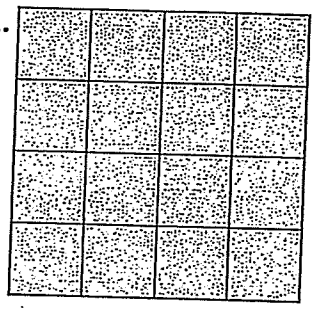
Common Core

COMMON CORE STANDARDS—
3.MD.C.5b, 3.MD.C.6 *Geometric measurement: understand concepts of area and relate area to multiplication and to addition.*

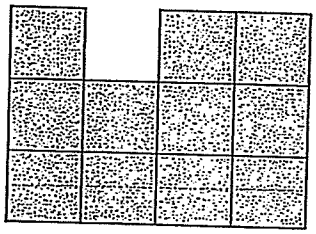
Count to find the area of the shape. Each unit square is 1 square centimeter.

1. 

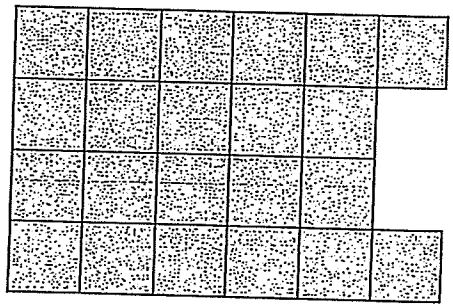
Area = 14 square centimeters

2. 

Area = _____ square centimeters

3. 

Area = _____ square centimeters

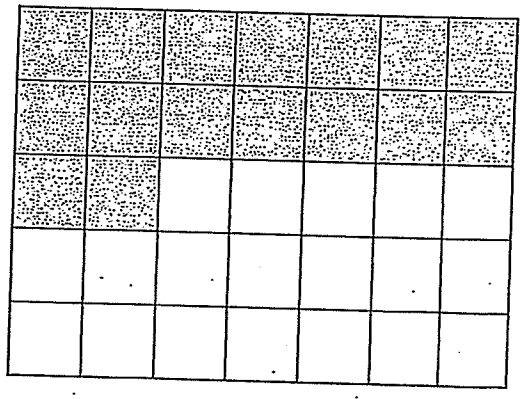
4. 

Area = _____ square centimeters

Problem Solving (Real World)

Alan is painting his deck gray. Use the diagram at the right for 5. Each unit square is 1 square meter.

Alan's Deck



5. What is the area of the deck that Alan has already painted gray?

_____

6. WRITE ▸ *Math* Explain how to find the area of a figure using square tiles.

_____

_____

Name _____

Share and Show MATH BOARD

Use the table for 1–2.

Swimming Pool Sizes			
Pool	Length (in feet)	Width (in feet)	Area (in square feet)
A	8	20	
B	8	30	
C	8	40	
D	8	50	

1. Many pools come in rectangular shapes. How do the areas of the swimming pools change when the widths change?

First, complete the table by finding the area of each pool.

Think: I can find the area by multiplying the length and the width.

Then, find a pattern of how the lengths change and how the widths change.

The _____ stays the same. The widths _____.

Last, describe a pattern of how the area changes.

The areas _____ by ____ square feet.

2. What if the length of each pool was 16 feet? Explain how the areas would change.

_____

On Your Own

3. MATHEMATICAL PRACTICE 7 **Look for a Pattern** If the length of each pool in the table is 20 feet, and the widths change from 5, to 6, to 7, and to 8 feet, describe the pattern of the areas.

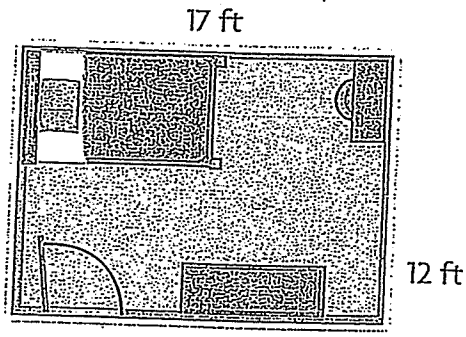
_____

_____

4. MATHEMATICAL PRACTICES 1 **Analyze Relationships** Jacob has a rectangular garden with an area of 56 square feet. The length of the garden is 8 feet. What is the width of the garden?

_____

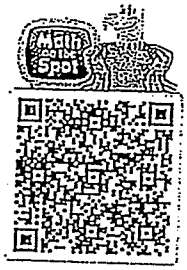
5. GO DEEPER A diagram of Paula's bedroom is at the right. Her bedroom is in the shape of a rectangle. Write the measurements for the other sides. What is the perimeter of the room? (Hint: The two pairs of opposite sides are equal lengths.)



_____

_____

6. THINK SMARTER Elizabeth built a sandbox that is 4 feet long and 4 feet wide. She also built a flower garden that is 4 feet long and 6 feet wide and a vegetable garden that is 4 feet long and 8 feet wide. How do the areas change?



_____

_____

_____

_____

7. THINK SMARTER Find the pattern and complete the chart.

Total Area (in square feet)	50	60	70	80	
Length (in feet)	10	10		10	
Width (in feet)	5	6	7		

How can you use the chart to find the length and width of a figure with an area of 100 square feet?

_____

_____

Name _____

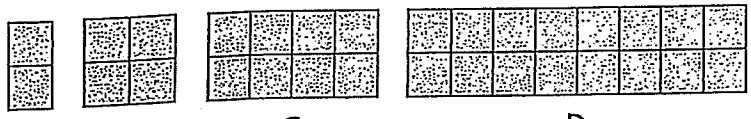
Problem Solving • Area of Rectangles

Common Core

COMMON CORE STANDARD—3.MD.C.7b
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

Use the information for 1–3.

An artist makes rectangular murals in different sizes. Below are the available sizes. Each unit square is 1 square meter.



1. Complete the table to find the area of each mural.

Mural	Length (in meters)	Width (in meters)	Area (in square meters)
A	2	1	2
B	2	2	4
C	2		
D	2		

2. Find and describe a pattern of how the length changes and how the width changes for murals A through D.

_____

_____

3. How do the areas of the murals change when the width changes?

_____

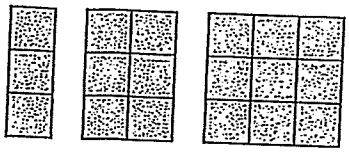
4. WRITE ▷ Math Write and solve an area problem that illustrates the use of the *find a pattern* strategy.

_____

_____

Lesson Check (3.MD.C.7b)

1. Lauren drew the designs below. Each unit square is 1 square centimeter. If the pattern continues, what will be the area of the fourth shape?

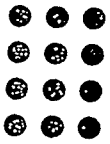


2. Henry built one garden that is 3 feet wide and 3 feet long. He also built a garden that is 3 feet wide and 6 feet long, and a garden that is 3 feet wide and 9 feet long. How do the areas change?

Spiral Review (3.OA.A.3, 3.NBT.A.3, 3.NF.A.1, 3.MD.C.5b, 3.MD.C.6)

3. Joe, Jim, and Jack share 27 football cards equally. How many cards does each boy get?

4. Nita uses $\frac{1}{3}$ of a carton of 12 eggs. How many eggs does she use?



5. Brenda made 8 necklaces. Each necklace has 10 large beads. How many large beads did Brenda use to make the necklaces?

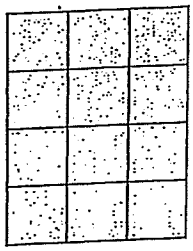
6. Neal is tiling his kitchen floor. Each square tile is 1 square foot. Neal uses 6 rows of tiles with 9 tiles in each row. What is the area of the floor?

FOR MORE PRACTICE GO TO THE Personal Math Trainer

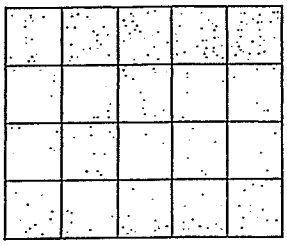
Name _____

On Your Own

Find the area of the figure.
Each unit square is 1 square foot.

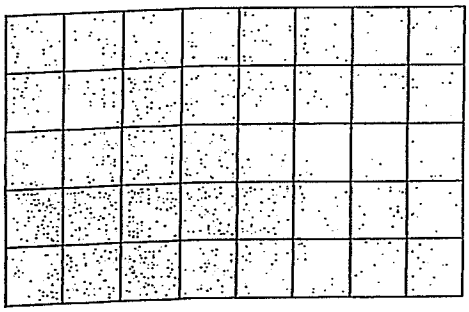
6. 

_____

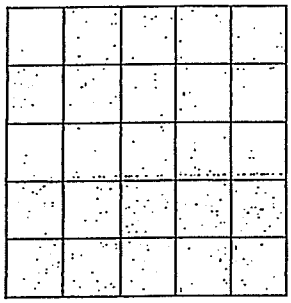
7. 

_____

Find the area of the figure.
Each unit square is 1 square meter.

8. 

_____

9. 

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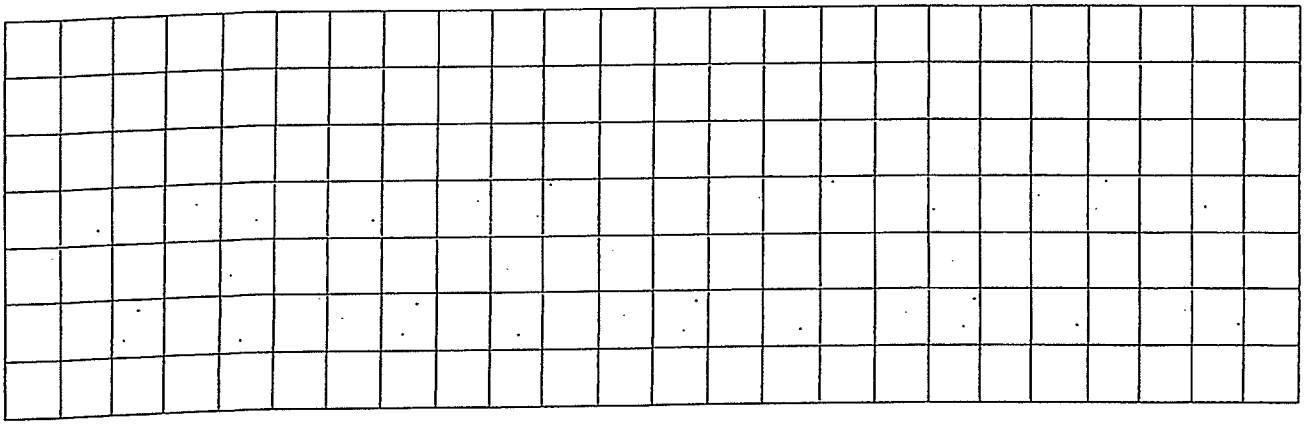
10. MATHEMATICAL PRACTICE 4 **Use Diagrams** Draw and shade three rectangles with an area of 24 square units. Then write an addition or multiplication equation for each.



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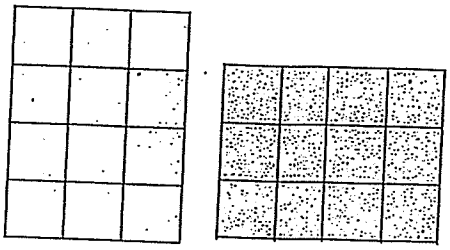
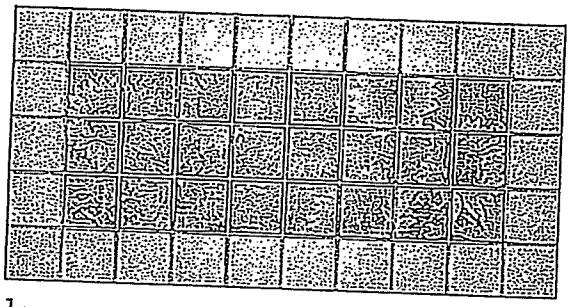
Problem Solving • Applications (Real World)

11. GO DEEPER Compare the areas of the two rugs at the right. Each unit square represents 1 square foot. Which rug has the greater area? Explain.



12. THINK SMARTER A tile company tiled a wall using square tiles. A mural is painted in the center. The drawing shows the design. The area of each tile used is 1 square foot.



Write a problem that can be solved by using the drawing. Then solve your problem.

13. THINK SMARTER Colleen drew this rectangle. Select the equation that can be used to find the area of the rectangle. Mark all that apply.

Ⓐ $9 \times 6 = n$

Ⓑ $9 + 9 + 9 + 9 + 9 + 9 = n$

Ⓒ $9 + 6 = n$

Ⓓ $6 \times 9 = n$

Ⓔ $6 + 6 + 6 + 6 + 6 + 6 = n$

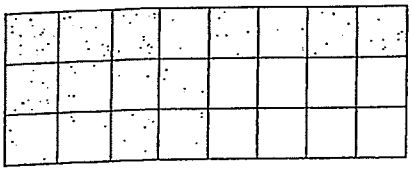
Name _____

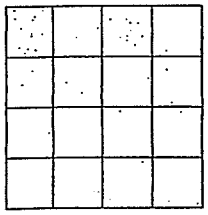
Use Area Models

Common Core

COMMON CORE STANDARDS—
3.MD.C.7, 3.MD.C.7a *Geometric measurement: understand concepts of area and relate area to multiplication and to addition.*

Find the area of each shape. Each unit square is 1 square foot.

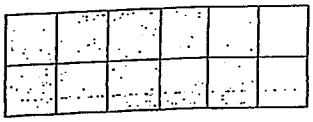
1. 

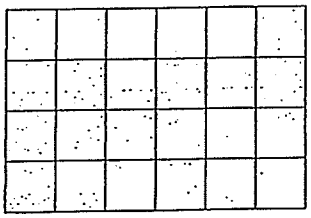
2. 

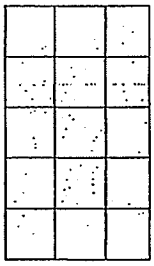
There are 3 rows of 8 unit squares.
$3 \times 8 = 24$

24 square feet

Find the area of each shape.
Each unit square is 1 square meter.

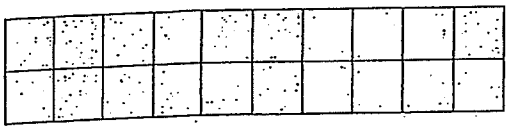
3. 

4. 

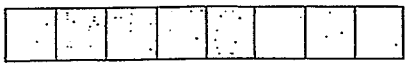
5. 

Problem Solving Real World

6. Landon made a rug for the hallway. Each unit square is 1 square foot. What is the area of the rug?



7. Eva makes a border at the top of a picture frame. Each unit square is 1 square inch. What is the area of the border?



8. WRITE Math Describe each of the three methods you can use to find the area of a rectangle.