Name _____

3rd Grade Modified Math Remote Learning Packet

Week 16

Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

_____ _____

(Parent Signature) (Date)

Parents please note that all academic packets are also available on our website at www.brighterchoice.org under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.

Brighter Choice
Charter School for Boys

Day # 1

LEQ: How can I multiply and divide using units of 6 and 7?

Objective: I can use the distributive property to multiply and divide using units of 6 and 7.

Vocabulary:

- Distributive Property
- Number Bond
- Decompose
- Quotient
- Sums
- Products

Name: _____ Week 16 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Do Now:

Multiplication: 0 - 5

a. 5 x 7 = 35 | 4 x 3 | 2 x 2 | 3 x 11 = 33 | 5 x 10

b. 4 x 12 | 1 x 0 | 2 x 5 | 5 x 6 | 5 x 9

c. 2 x 11 | 2 x 3 | 5 x 8 | 3 x 12 | 4 x 10 | 5 x 12 | 1 x 10

d. 5 x 5 | 3 x 3 | 2 x 6 | 0 x 12 | 1 x 10 | 5 x 4 | 2 x 12

e. 2 x 4 | 3 x 6 | 2 x 9 | 4 x 11 | 4 x 7 | 0 x 6 | 4 x 9

f. 5 x 3 | 4 x 6 | 2 x 8 | 3 x 9

g. 4 x 4 | 3 x 7 | 4 x 8 | 3 x 8

Name: _____ Week 16 Day 1 Date: _____

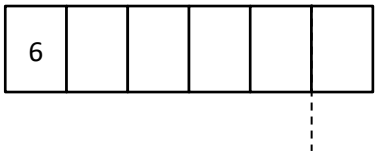
BCCS-B Harvard Yale Princeton

Input (My Turn):

Label the tape diagrams. Then, fill in the blanks below to make the statements true.

a. **6 × 6** = _____

(5 × 6) = _____ (_____× 6) = _____



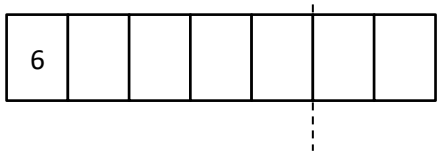
(6 × 6) = (5 × 6) + (1 × 6)

= 30 + _____

= _____

b. **7 × 6** = _____

(5 × 6) = _____ (_____ × 6) = _____



(7 × 6) = (5 × 6) + (2 × 6)

= 30 + _____

= _____

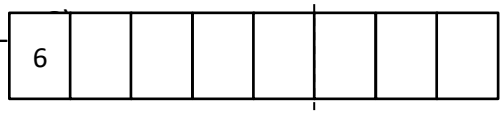
Problem Set (Your Turn):

Label the tape diagrams. Then, fill in the blanks below to make the statements true.

c. **8 × 6** = _____

(5 × 6) = _____ (_____× 6) = _____

(_____



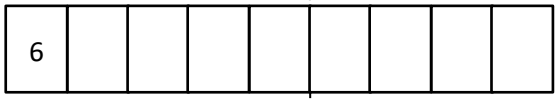
8 × 6 = (5 × 6) + (_____ × 6)

= 30 + _____

= _____

d. **9 × 6** = _____

(5 × 6) = _____



9 × 6 = (5 × 6) + (_____ × 6)

= 30 + _____

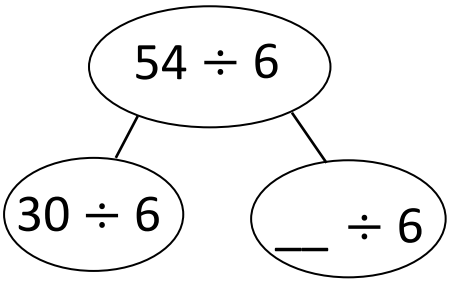
= _____

Name: _____ Week 16 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

2. Break apart 54 to solve 54

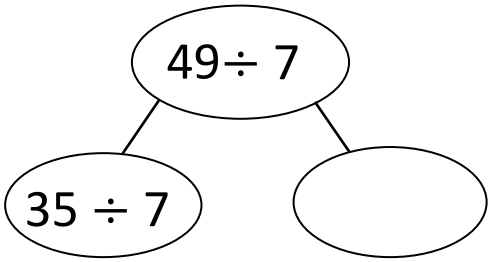


54 ÷ 6 = (30 ÷ 6) +

(_____÷ 6)

= 5 + _____

3. Break apart 49 to solve 49



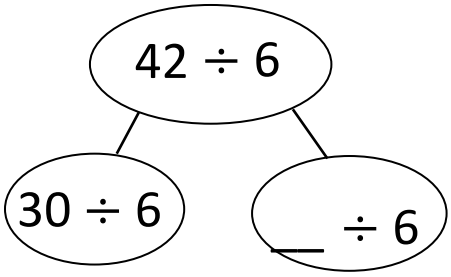
49 ÷ 7 = (35 ÷ 7) +

(_____÷ 7)

= 5 + _____

Problem Set (Your Turn):

2. Break apart 42 to solve 42

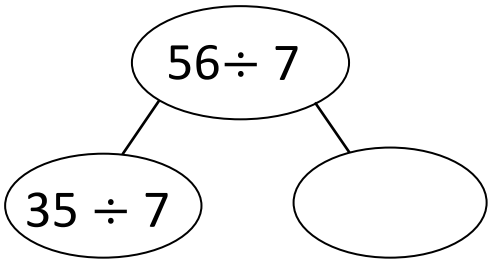


42 ÷ 6 = (30 ÷ 6) +

(_____÷ 6)

= 5 + _____

3. Break apart 56 to solve 56



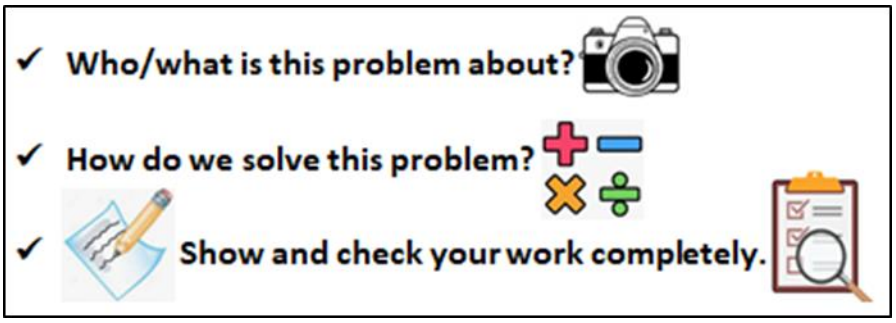
56 ÷ 7 = (35 ÷ 7) +

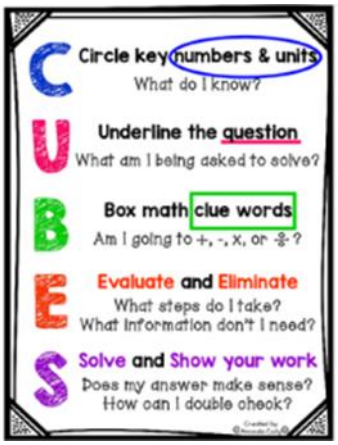
(_____÷ 7)

= 5 + _____

Name: _____ Week 16 Day 1 Date: _____

BCCS-B Harvard Yale Princeton





Application:

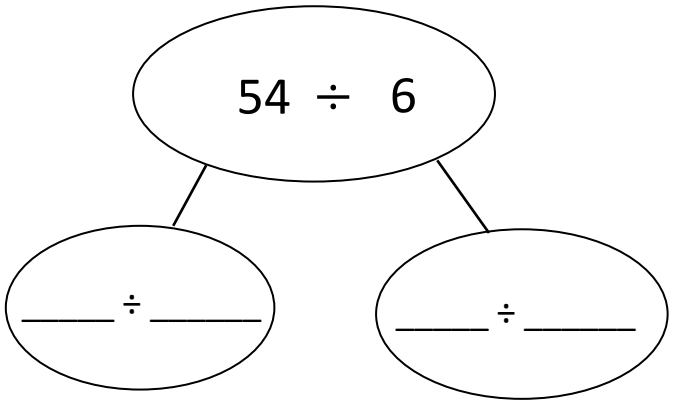
Malia solves 6 × 7 using (5 × 7) + 7. Leonidas solves 6 × 7 using (6 × 5) + (6 × 2). Who is correct? Draw a picture to help explain your answer.

Name: _____ Week 16 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Exit Ticket:

1. Break apart 54 to solve 54 ÷ 6.



54 ÷ 6 = (_____ ÷ _____) + (_____ ÷ _____)

= 5 + _____

= _____

Name: _____ Week 16 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

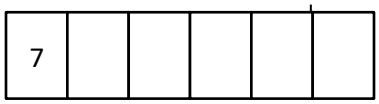
Homework:

1. Label the tape diagrams. Then, fill in the blanks below to make the statements true.

a. **6 × 7**= _____

(5 × 7) = _____ (_____ × 7) = _____

= _____



(6 × 7) = (5 + 1) × 7

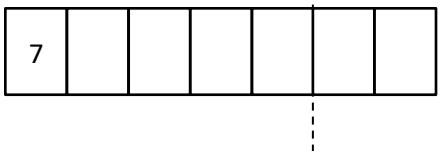
= (5 × 7) + (1 × 7)

= 35 + _____

= _____

b. **7 × 7** = _____

(5 × 7) = _____ (_____ × 7)



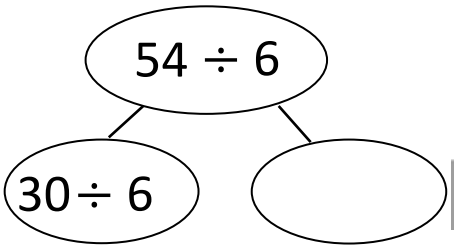
(7 × 7) = (5 + 2) × 7

= (5 × 7) + (2 × 7)

= 35 + _____

= _____

2. Break apart 54 to solve 54 ÷ 6.

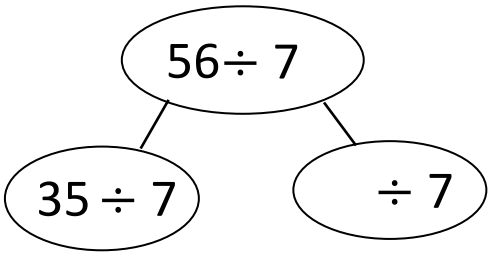


54 ÷ 6 = (30 ÷ 6) + (_____ ÷ 6)

= 5 + _____

= _____

3. Break apart 56 to solve 56 ÷ 7



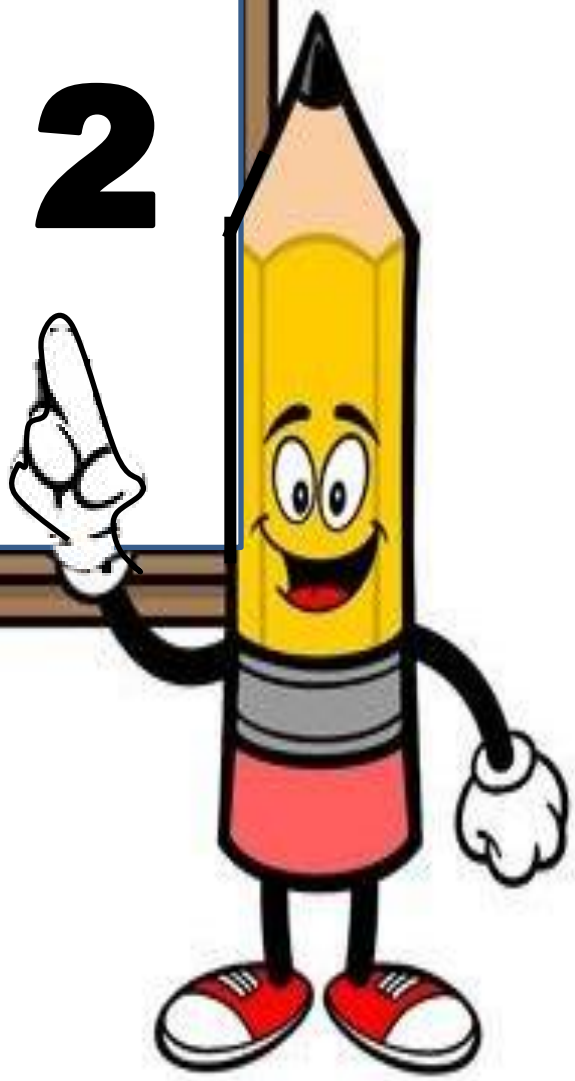
56 ÷ 7 = (_____ ÷ _____) + (_____ ÷ _____)

= 5 + _____

= _____

Brighter Choice
Charter School for Boys

Day # 2



LEQ: How can I understand the function of parentheses?

Objective: I can explore how moving parentheses can change the answer in an equation to understand their function.

Vocabulary:

- Parentheses
- Operation
- Trial and Error
- Expression

Name: ________________________ Week 16 Day 2 Date: ____________________

BCCS-B Harvard Yale Princeton

Do Now:

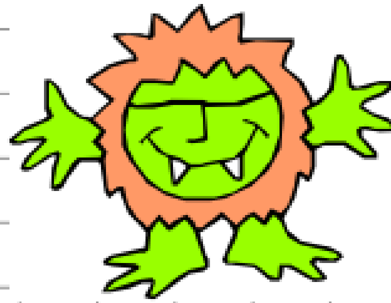
Monster Math

a.

5

6 7
\- 4 9

18



b.

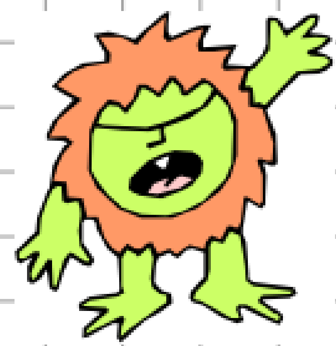
3 0
\- 2 1

c.

9 5
\- 7 4

d.

8 4
\- 6 8



e.

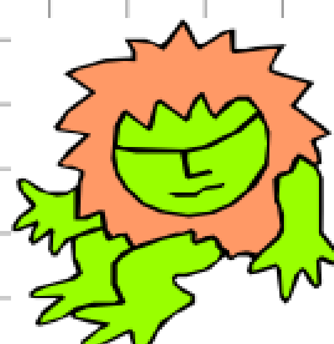
4 2
\- 3 9

f.

5 2
\- 6

g.

5 8
\- 4 3



h.

8 4
\- 5 8

Name: _____ Week 16 Day 2 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

_____ are a pair of round brackets that tell us which expression to solve first. Where there aren't parentheses to tell us where to start, we can use the strategy _____ and _____ error to determine where the parentheses need to go to make the equation true.

1. Solve each expression starting with what's in the parentheses.

a. $(12 - 4) + 6 =$ 14 8 +6=14	c. _____ $= (12 \div 2) + 4$
b. $12 - (4 + 6) =$ 2 12 - 10=2	d. _____ $= 12 \div (2 + 4)$
e. _____ $= 15 - (7 + 3)$	g. $9 + (15 \div 3) =$ _____
f. _____ $= (15 - 7) + 3$	h. $(9 + 15) \div 3 =$ _____

Name: _____ Week 16 Day 2 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

1. Solve each expression starting with what's in the parentheses.

a. 36 _____ = (3 + 2) × 6 6 x6=36 b. _____ = 3 + (2 × 6)	c. 60 ÷ (10 – 4) = _____ d. (60 ÷ 10) – 4 = _____
e. 4 × (7 – 2) = _____ f. (4 × 7) – 2 = _____	g. _____ = 35 + (10 ÷ 5) h. _____ = (35 + 10) ÷ 5

Name: _____ Week 16 Day 2 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

2. Use parentheses to make the equations true.

a. (16 – 4) + 7 = 19 12 + 7=19	b. 16 – 4 + 7 = 5
c. 2 = 22 – 15 + 5	d. 12 = 22 – 15 + 5

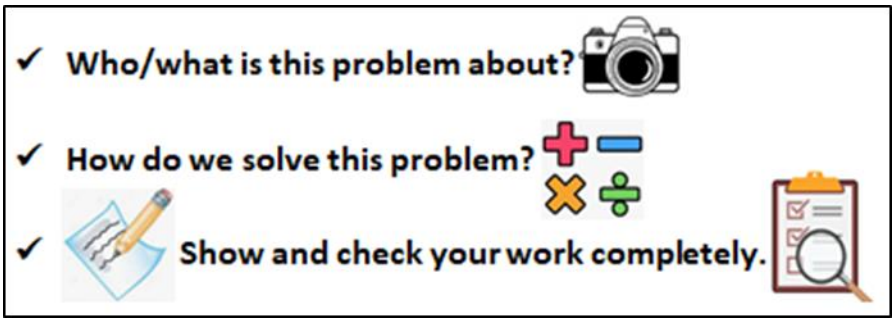
Problem Set (Your Turn):

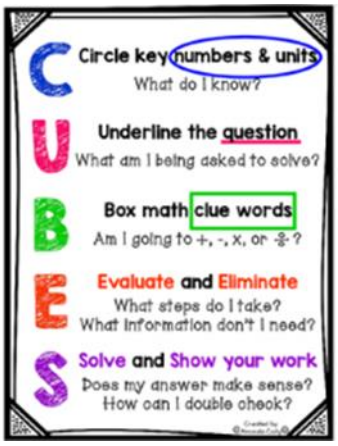
2. Use parentheses to make the equations true.

e. (3 + 7) × 6 = 60 10 x 6=60	f. 3 + 7 × 6 = 45
c. 5 = 10 ÷ 10 × 5	d. 50 = 100 ÷ 10 × 5
e. 26 – 5 ÷ 7 = 3	f. 36 = 4 × 25 – 16

Name: _____ Week 16 Day 2 Date: _____

BCCS-B Harvard Yale Princeton





Application:

Find two possible answers to the expression 7 + 3 × 2 by placing the parentheses in different places.

Example 1

(7+ 3) x 2=

10 x 2 = 20

Example 2

7 + 3 x 2 =

Name: _____ Week 16 Day 2 Date: _____

BCCS-B Harvard Yale Princeton

Exit Ticket:

1. Use parentheses to make the equations true.

a. $24 = 32 - 14 + 6$

b. $12 = 32 - 14 + 6$

c. $2 + 8 \times 7 = 70$

d. $2 + 8 \times 7 = 58$

2. Prince solves $24 \div 6 + 2 =$ _____. He says it equals 6. Jeremiah says it equals 3. Show how the position of parentheses in the equation can make both answers true.

Name: _____ Week 16 Day 2 Date: _____

BCCS-B Harvard Yale Princeton

Homework:

1. Solve. Complete a,c,e,g only

a. $9 - (6 + 3) =$ _____ b. $(9 - 6) + 3 =$ _____

c. _____ $= 14 - (4 + 2)$ d. _____ $= (14 - 4) + 2$

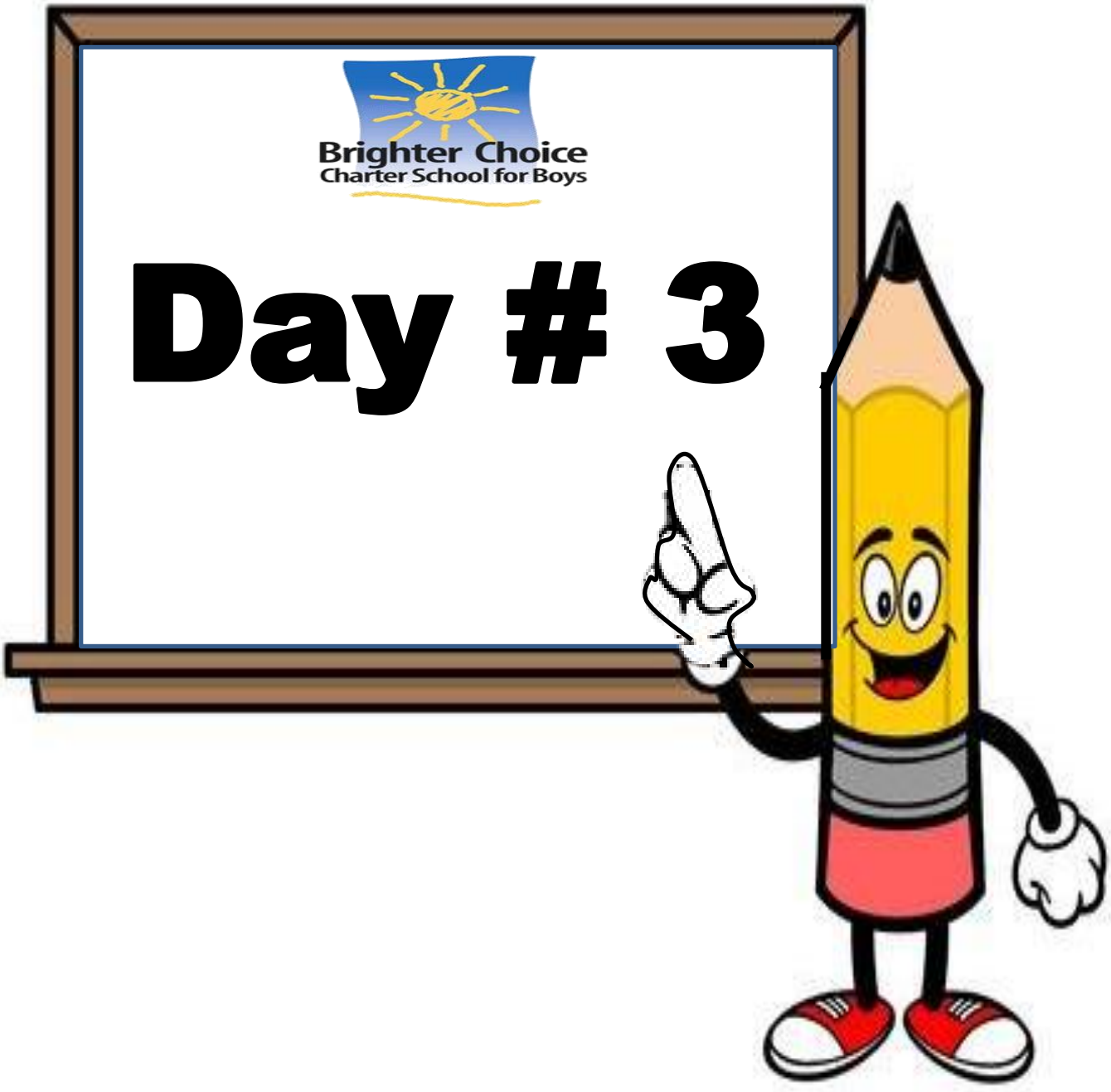
e. _____ $= (4 + 3) \times 6$ f. _____ $= 4 + (3 \times 6)$

g. $(18 \div 3) + 6 =$ _____ h. $18 \div (3 + 6) =$ _____

2. Xaiden says that the answer to $2 \times 6 \div 3$ is 4 no matter where he puts the parentheses. Do you agree? Place parentheses around different numbers to help you explain his thinking.

Brighter Choice
Charter School for Boys

Day # 3



LEQ: How can I model the associative property as a strategy to multiply?

Objective: I can simply the larger factor into two familiar products and use parentheses to model the associative property as a strategy to multiply.

Vocabulary:

- Simplify
- Associative property
- Groupings
- Products

Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton

Do Now:

Solve the following pairs of problems.

1. a. $7 + (6 + 4) =$_____
   b. $(7 + 6) + 4 =$_____

2. a. $(3 \times 2) \times 4 =$_____
   b. $3 \times (2 \times 4) =$_____

3. a. $(2 \times 1) \times 5 =$_____
   b. $2 \times (1 \times 5) =$_____

4. a. $(4 \times 2) \times 2 =$_____
   b. $4 \times (2 \times 2) =$_____

5. a. $(3 + 2) \times 5 =$_____
   b. $3 + (2 \times 5) =$_____

6. a. $(8 \div 2) \times 2 =$_____
   b. $8 \div (2 \times 2) =$_____

7. a. $(9 - 5) + 3 =$_____
   b. $9 - (5 + 3) =$_____

8. a. $(8 \times 5) - 4 =$_____
   b. $8 \times (5 - 4) =$_____

Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

We can _____ large products by using the _____ property.

The associate property states that when you multiply, you can_____ the numbers in any combination, much like the commutative property. When multiplying a single digit factor with a larger, double digit factor, we can make all the factors single digit and place the parentheses around the expression that is the most reasonable.

1. Place parentheses in the equations to simplify. Then, solve.

a. $3 \times 16 = 3 \times 2 \times 8$

$= 3 \times 2 \times 8$

$= \_\_\_\_\_ \times 8$

b. $2 \times 14 = 2 \times 2 \times 7$

$= 2 \times 2 \times 7$

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

Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

1. Place parentheses ( ) in the equations to simplify. Then, solve.

c.

$3 \times 12 = (3 \times 3) \times 4$

36 | 9 x 4

$= 3 \times 3 \times 4$

$= \underline{9} \times \underline{4}$

36

d.

$3 \times 14 = 3 \times 2 \times 7$

$= 3 \times 2 \times 7$

$= \_\_\_\_\_ \times \_\_\_\_\_$

e.

$15 \times 3 = 5 \times 3 \times 3$

$= 5 \times 3 \times 3$

$= \_\_\_\_\_ \times \_\_\_\_\_$

f.

$15 \times 2 = 5 \times 3 \times 2$

$= 5 \times 3 \times 2$

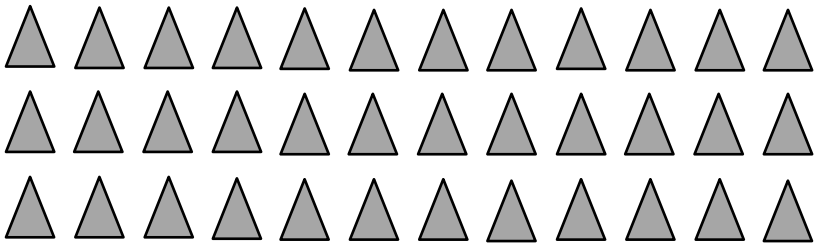
$= \_\_\_\_\_ \times \_\_\_\_\_$

Name: _____ Week 16 Day 3 Date: _____

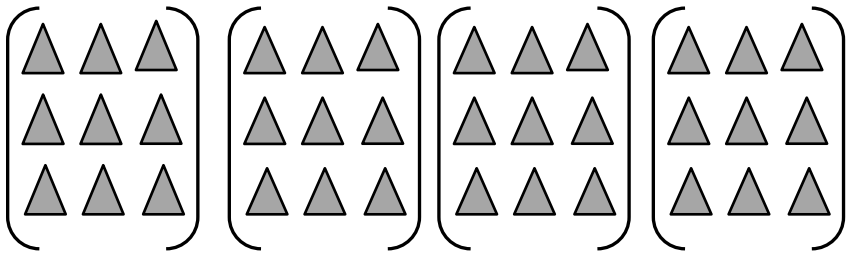
BCCS-B Harvard Yale Princeton

Input (My Turn):

1. Use the array to complete the equation.



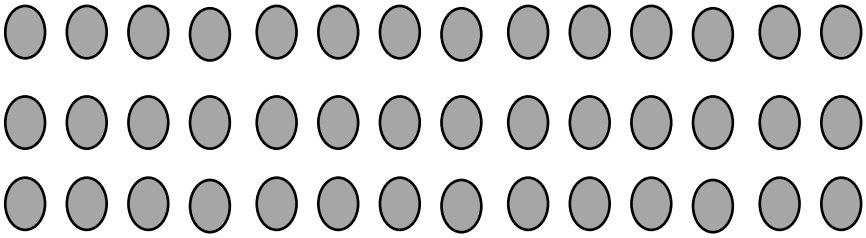
a. 3 × 12 = 36



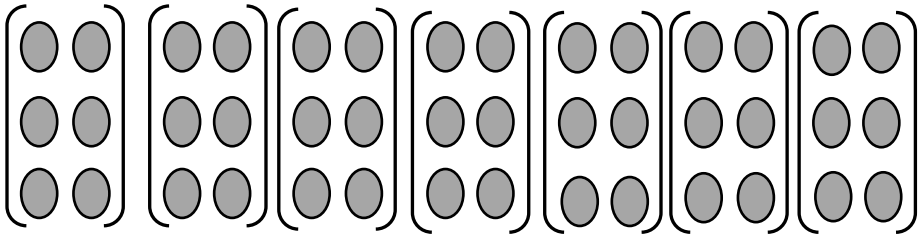
b. (3 × 3) × 4

= _____ × 4

= _____



c. 3 × 14 = _____



d. (_____ × _____) × 7

= _____ × _____

= _____

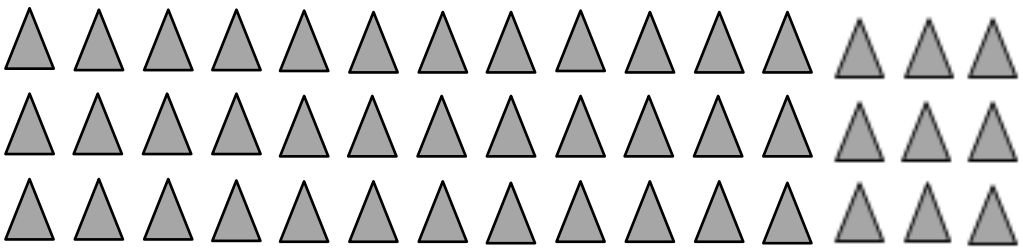
Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton

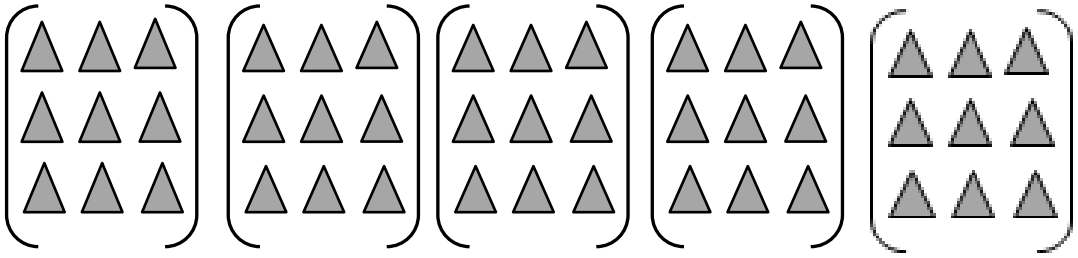
Problem Set (Your Turn):

1. Use the array to complete the equation.

a.



a. 3 × 15 = 45



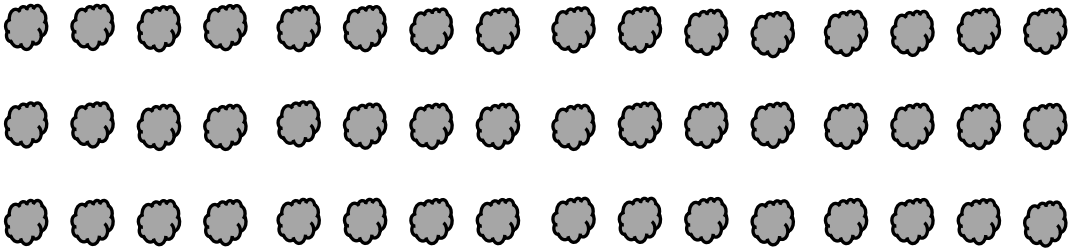
b. (3 × 3) × 5

____ × 5

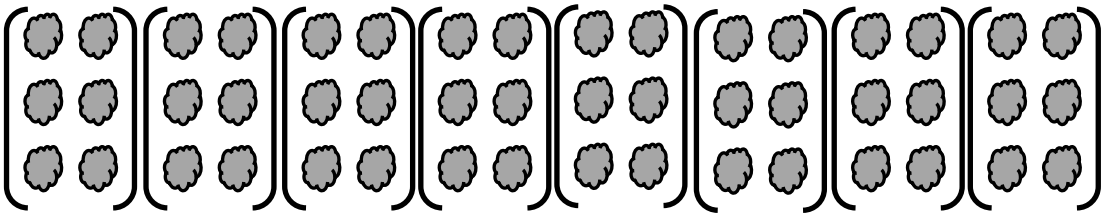
____

---

b.



c. 3 × 16 = _____



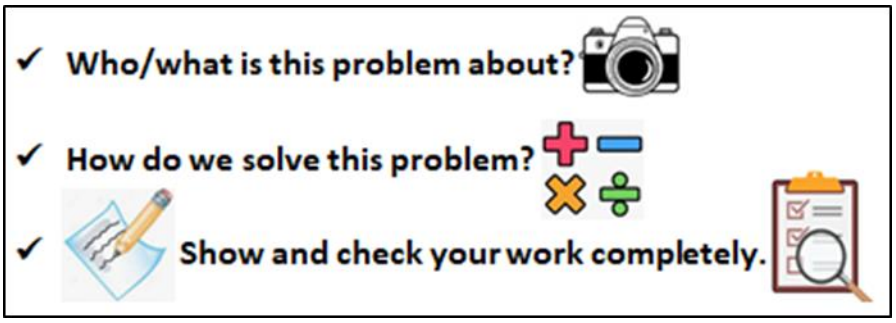
d. (3 × ____) × 8

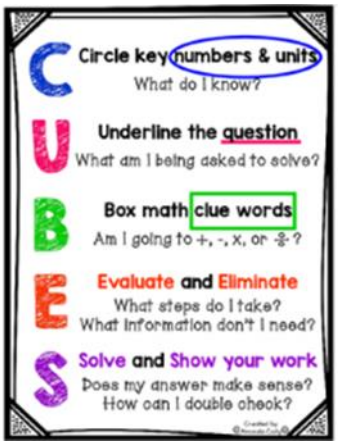
= _____ × _____

= _____

Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton





Application:

Simplify to find the answer to 18 × 3. Show your work, and explain your strategy.

Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton

Exit Ticket:

1. Use the array to complete the equation.

a. 4 × 18 = _____

b. (4 × ____) × 9

= _____ × _____

= _____

Name: _____ Week 16 Day 3 Date: _____

BCCS-B Harvard Yale Princeton

Homework: Complete b and d and number 2

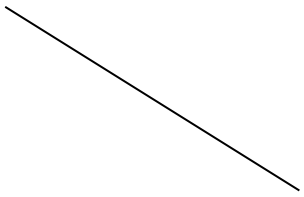
1. Solve. Then, match the related facts.

a. 20 × 2 = __**40**__ =

b. 30 × 2 = _____ =

c. 35 × 2 = _____ =

d. 40 × 2 = _____ =



6 × (5 × 2)

8 × (5 × 2)

4 × (5 × 2)

7 × (5 × 2)

2. Simplify to find the answer to 15 × 3. Show your work, and explain your strategy.


Brighter Choice
Charter School for Boys
Day # 4

LEQ: How can I use the distributive property as a strategy to multiply and divide?

Objective: I can break apart and distribute columns in arrays and groups in number bonds to apply the distributive strategy to multiplication and division.

Vocabulary:

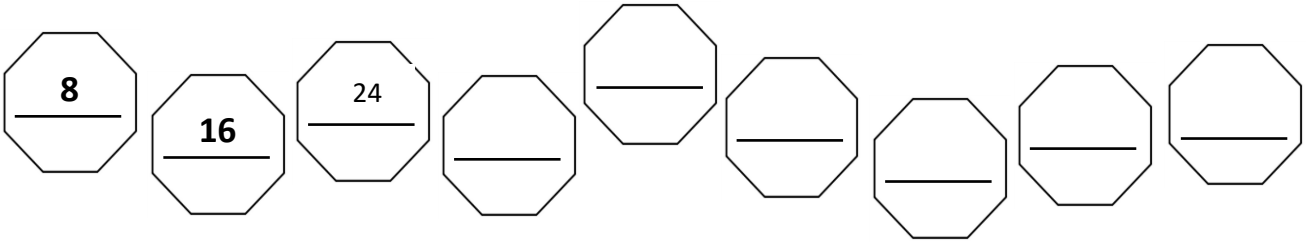
- Break apart and distribute
- Distributive property
- Number bond

Name: _____ Week 16 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

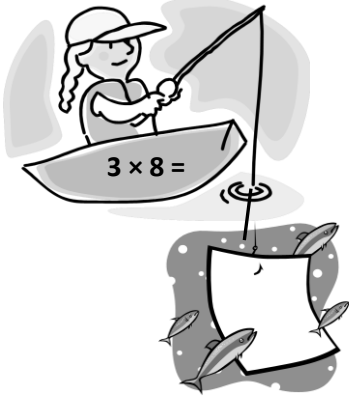
Do Now:

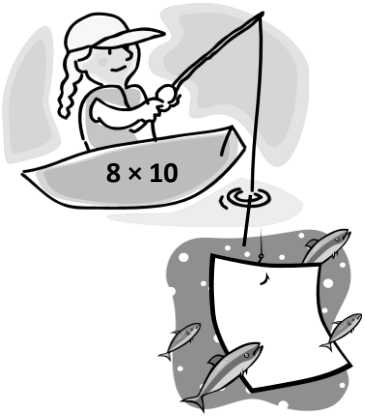
An octagon has 8 sides. Skip-count to find the total number of sides on 9 octagons.

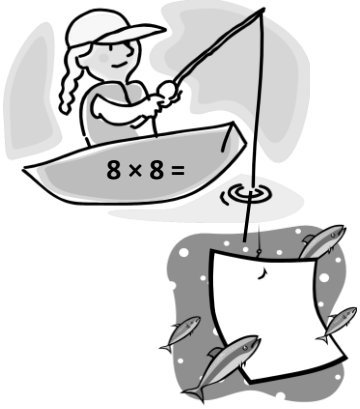


Nine octagons have a total of _____ sides.

Multiply.







Name: _____ Week 16 Day 4 Date: _____

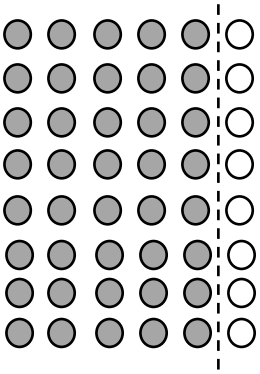
BCCS-B Harvard Yale Princeton

Input (My Turn):

1. Label the arrays. Then, fill in the blanks below to make the statements true.

a. **8 × 6 =** 48

(8 × 5) = 40 (8 × 1) = 48



8 × 6 =

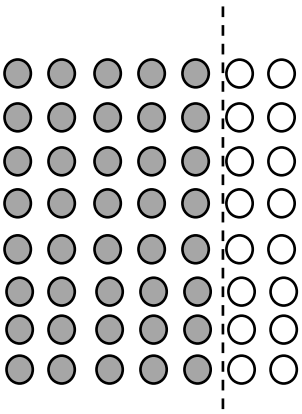
= (8 × 5) + (8 × _____)

= 40 + _____

= _____

b. **8 × 7= 7 × 8 =**_____

(8 × 5) = _____ (8 × _____) = _____



9 × 8 =

= (8 × 5) + (8 × ____)

= 40 + _____

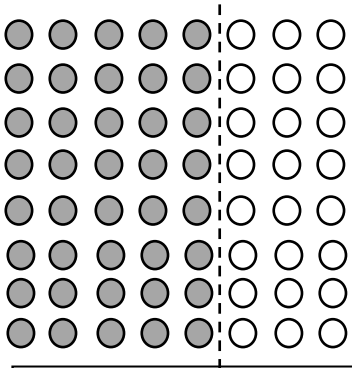
= _____

Problem Set (Your Turn):

2. Label the arrays. Then, fill in the blanks below to make the statements true.

b. **8 × 8 =** 64

(8 × 5) = _____ (8 × _____) = _____



8 × 8 =

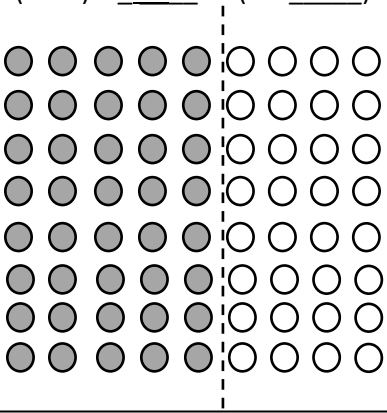
= (8 × 5) + (8 × _____)

= 40 + _____

= _____

b. **8 × 9 = 9 × 8 =**_____

(8 × 5) = _____ (8 × _____) = _____



9 × 8 =

= (8 × 5) + (8 × ____)

= 40 + _____

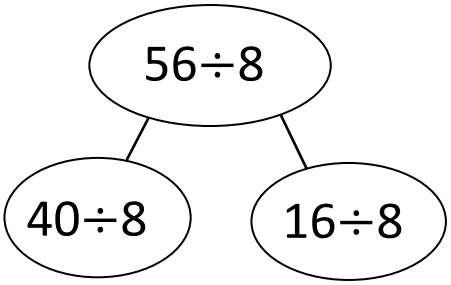
= _____

Name: _____ Week 16 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

3. Break apart and distribute to solve 56 ÷ 8.

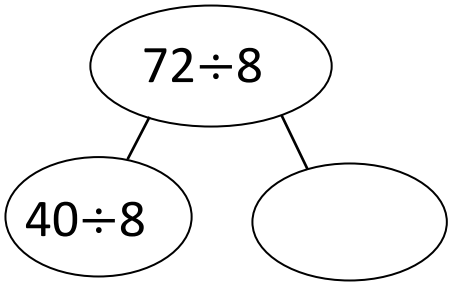


56 ÷ 8 = (40 ÷ 8) + (_____÷ 8)

= 5 + _____

= _____

4. Break apart and distribute to solve 72 ÷ 8.



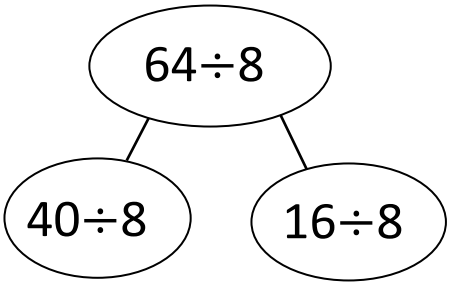
72 ÷ 8 = (40 ÷ 8) + (_____÷ 8)

= 5 + _____

= _____

Problem Set (Your Turn):

3. Break apart and distribute to solve 64 ÷ 8.

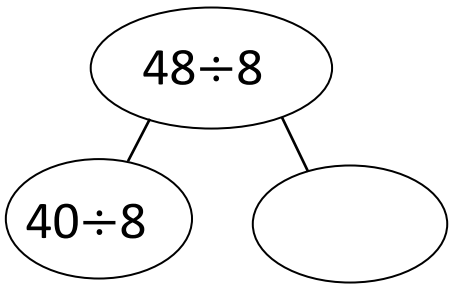


64 ÷ 8 = (40 ÷ 8) + (_____÷ 8)

= 5 + _____

= _____

4. Break apart and distribute to solve 48 ÷ 8.



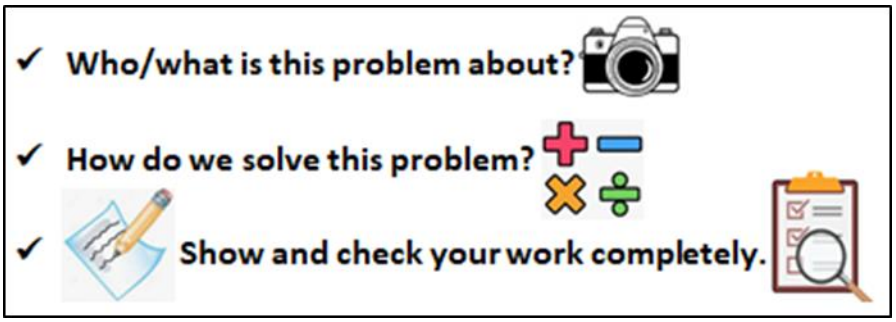
48 ÷ 8 = (40 ÷ 8) + (_____÷ 8)

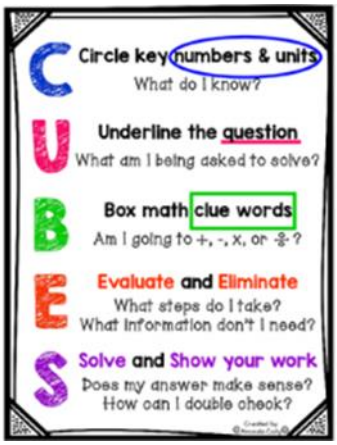
= 5 + _____

= _____

Name: _____ Week 16 Day 4 Date: _____

BCCS-B Harvard Yale Princeton





Application:

Ms. Morton uses the 5 plus something break apart and distribute strategy to solve 6 × 8. Show her strategy below.

Name: _____ Week 16 Day 4 Date: _____

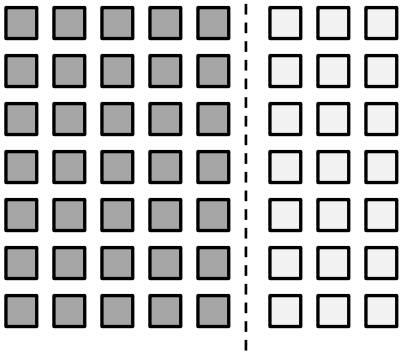
BCCS-B Harvard Yale Princeton

Exit Ticket:

1. Label the array. Then, fill in the blanks to make the statements true.

8 × 7 = 7 × 8 =_____

(7 × 5) = _____ (7 × _____) = _____



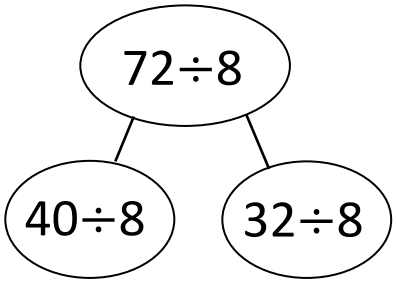
8 × 7 =

= (7 × 5) + (7 × ____)

= __35__ + _____

= _____

2. Break apart and distribute to solve 72 ÷ 8.



72 ÷ 8 = (40 ÷ 8) + (_____÷ 8)

= 5 + _____

= _____

Name: _____ Week 16 Day 4 Date: _____

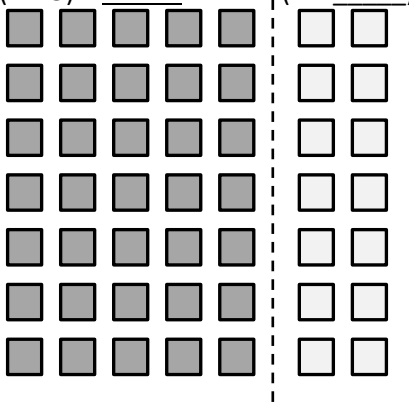
BCCS-B Harvard Yale Princeton

Homework:

1. Label the array. Then, fill in the blanks to make the statements true.

7 × 7 = _____

(7 × 5) = _____ (7 × _____) = _____



7 × 7 =

= (7 × 5) + (7 × ____)

= __35__ + _____

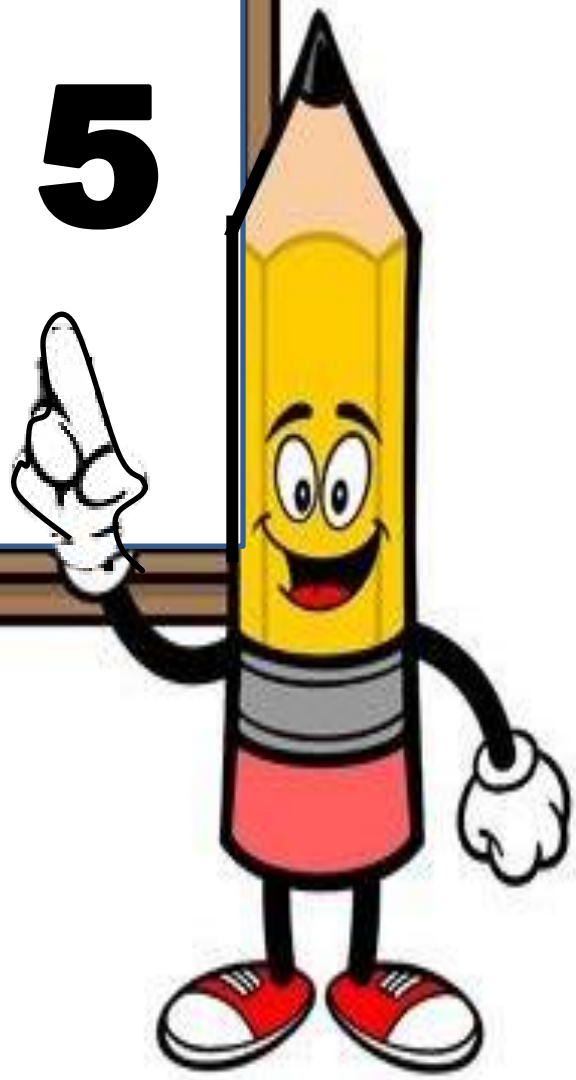
= _____

2. Use the break apart and distribute strategy to solve the following problem. You may choose whether or not to draw an array.

7 × 8 =___

Brighter Choice
Charter School for Boys

Day # 5



LEQ: How can I represent and interpret the unknown in division and multiplication word problems?

Objective: I can use a letter to represent the unknown and draw a diagram to represent this value in division and multiplication word problems.

Vocabulary:

- Unknown
- Equation
- Quotient
- Product

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Do Now: Multiply.

8 x 1 = 8	8 x 2 = 16	8 x 3 = 24	8 x 4 = 36
8 x 5 = _____	8 x 1 = _____	8 x 2 = _____	8 x 1 = _____
8 x 3 = _____	8 x 1 = _____	8 x 4 = _____	8 x 1 = _____
8 x 5 = _____	8 x 1 = _____	8 x 2 = _____	8 x 3 = _____
8 x 2 = _____	8 x 4 = _____	8 x 2 = _____	8 x 5 = _____
8 x 2 = _____	8 x 1 = _____	8 x 2 = _____	8 x 3 = _____
8 x 1 = _____	8 x 3 = _____	8 x 2 = _____	8 x 3 = _____
8 x 4 = _____	8 x 3 = _____	8 x 5 = _____	8 x 3 = _____
8 x 4 = _____	8 x 1 = _____	8 x 4 = _____	8 x 2 = _____
8 x 4 = _____	8 x 3 = _____	8 x 4 = _____	8 x 5 = _____
8 x 4 = _____	8 x 5 = _____	8 x 1 = _____	8 x 5 = _____
8 x 2 = _____	8 x 5 = _____	8 x 3 = _____	8 x 5 = _____
8 x 4 = _____	8 x 2 = _____	8 x 4 = _____	8 x 3 = _____
8 x 5 = _____	8 x 3 = _____	8 x 2 = _____	8 x 4 = _____
8 x 3 = _____	8 x 5 = _____	8 x 2 = _____	8 x 4 = _____

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

1. Ms. Millin divides 32 students into 8 equal groups for a field trip. Draw a tape diagram, and label the number of students in each group as *n*. Write an equation, and solve for *n*.

Total: 32

Groups: 8

Parts: _____

2. Ms. Young buys 6 packs of printer paper. Each pack of paper costs $8. Draw a tape diagram, and label the total amount she spends as *m*. Write an equation, and solve for *m*.

Total: _____

Groups: _____

Parts: _____

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

1. Mr. Confesor divides 40 students into 8 equal groups for a hiking trip. Draw a tape diagram, and label the number of students in each group as *p*. Write an equation, and solve for *p*.

Total: _____

Groups: _____

Parts: _____

2. Mrs. Mclean buys 7 packs of ink. Each pack of ink costs $8. Draw a tape diagram, and label the total amount she spends as *k*. Write an equation, and solve for *k*.

Total: _____

Groups: _____

Parts: _____

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

Alex buys some packs of erasers. There are 8 erasers in each pack.

a. How many packs of erasers does he buy if he has a total of 48 erasers? Draw a tape diagram, and label the total number of packages as *r*. Write an equation, and solve for *r*.

b. After giving some erasers away, Alex has 12 left. How many erasers did he give away?

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

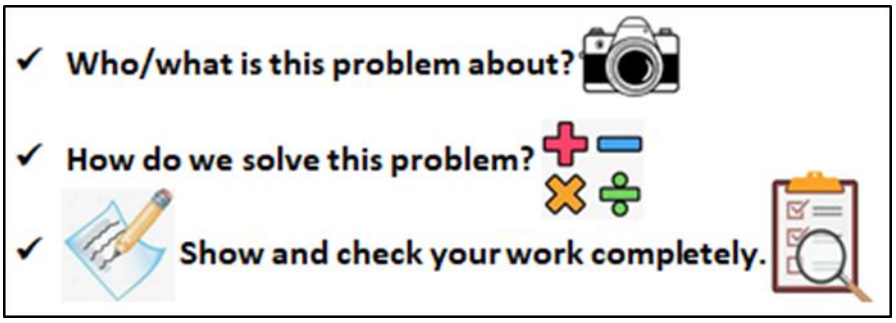
Ratiek buys some packs of pencils. There are 8 pencils in each pack.

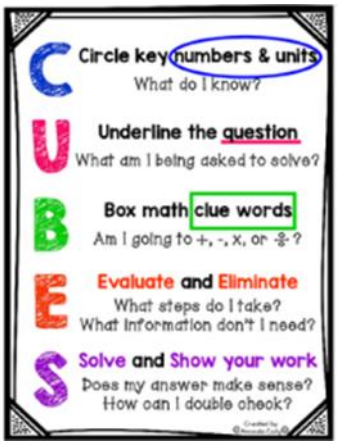
a. How many packs of pencils does he buy if he has a total of 64 pencils? Draw a tape diagram, and label the total number of packages as *e*. Write an equation, and solve for *e*.

b. After giving some pencils away, Ratiek has 14 left. How many pencils did he give away?

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton





Application:

Jenny bakes 10 cookies. She puts 7 chocolate chips on each cookie. Draw a tape diagram, and label the total amount of chocolate chips as *c*. Write an equation, and solve for *c*.

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Exit Ticket:

Eric buys some packs of rubber bracelets. There are 8 bracelets in each pack.

a. How many packs of rubber bracelets does he buy if he has a total of 56 bracelets? Draw a tape diagram, and label the total number of packages as p. Write an equation, and solve for p.

b. After giving some bracelets away, Eric has 18 left. How many bracelets did he give away?

Name: _____ Week 16 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Homework: Use CUBES

1. Mr. Thompson arranges 48 dry erase markers into 8 equal groups for his math stations. Draw a tape diagram, and label the number of dry erase markers in each group as *v*. Write an equation, and solve for *v*.

2. There are 35 computers in the lab. Five students each turn off an equal number of computers. How many computers does each student turn off? Label the unknown as *m*, and then solve.

Name _____

3rd Grade Modified Math Remote Learning Packet

Week 17

Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

_____ _____

(Parent Signature) (Date)

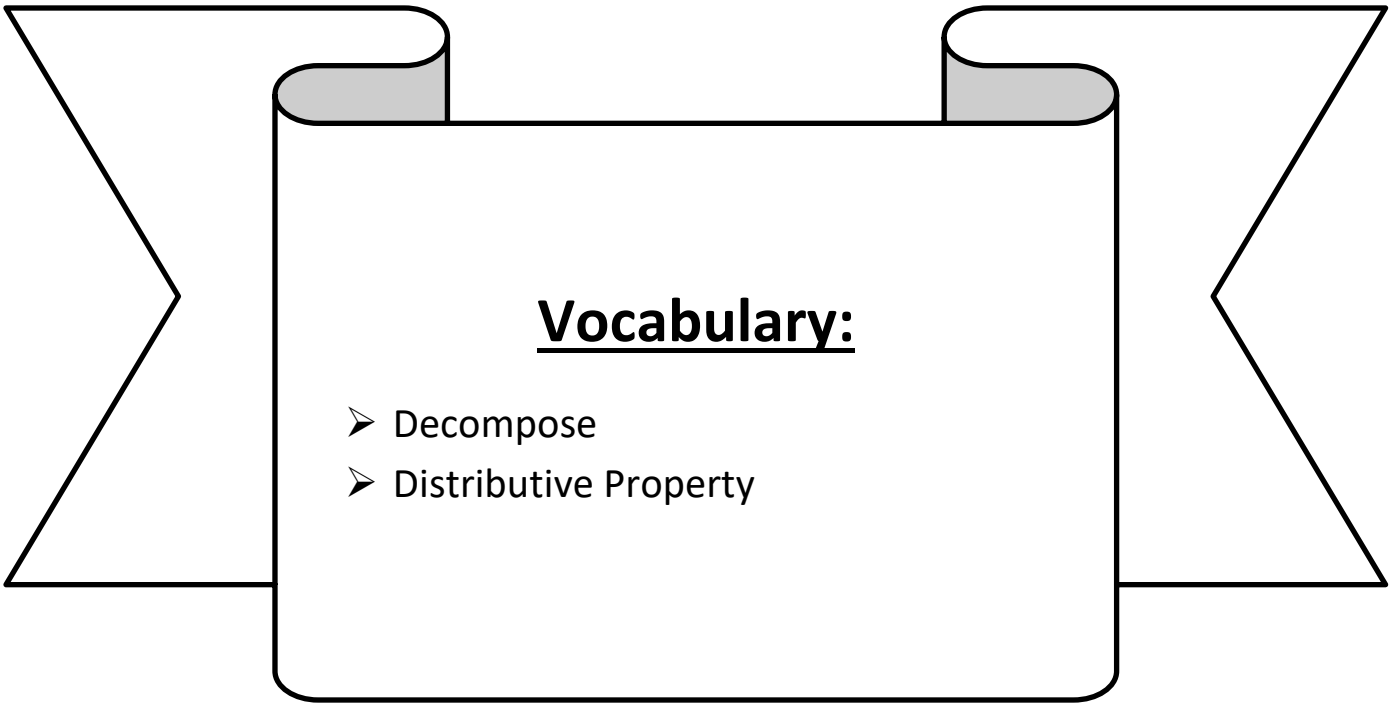
Parents please note that all academic packets are also available on our website at www.brighterchoice.org under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.

Brighter Choice
Charter School for Boys

Day # 1

LEQ: How can I multiply groups of 9?

Objective: I can decompose groups of 9 and use the distributive property to multiply by 9.



Name: _____ Week 17 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Do Now:

Multiplying in the Desert

Practice your **9's** multiplication facts in the desert. Solve each fact, and check the box with the correct product.

9x1	9 ☑	10 ☐	9x6	54 ☐	48 ☐
9x2	18 ☐	16 ☐	9x7	64 ☐	63 ☐
9x3	24 ☐	27 ☐	9x8	82 ☐	72 ☐
9x4	36 ☐	38 ☐	9x9	76 ☐	81 ☐
9x5	40 ☐	45 ☐	9x10	90 ☐	85 ☐

Name: _____ Week 17 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

1. Each  has a value of **9**. Find the value of each row. Then, add the rows to find the total.

a. **6 × 9 =** 54

5 × 9 = 45

1 × 9 = 9

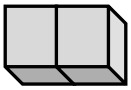
6 × 9 = (5 × 9) + (1 × 9)

= 45 + 9

= 54

b. **7 × 9 =** _____

5 × 9 = 45



_____ × 9 = _____

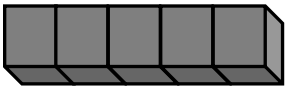
7 × 9 = (5 × 9) + (_____ × 9)

= 45 + _____

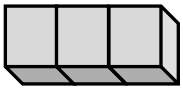
= _____

Problem Set (Your Turn):

c. **8 × 9 =** _____



5 × 9 = _____



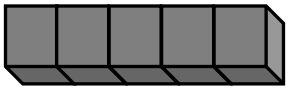
_____ × 9 = _____

8 × 9 = (5 × 9) + (_____ × 9)

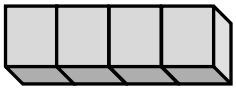
= 45 + _____

= _____

d. **9 × 9 =** _____



5 × 9 = _____



_____ × 9 = _____

9 × 9 = (5 × 9) + (_____ × 9)

= 45 + _____

= _____

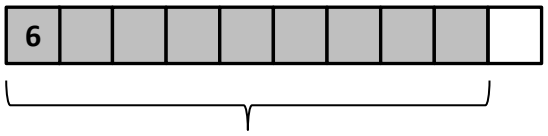
Name: _____ Week 17 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

2. Find the total value of the shaded blocks.

a. **9 × 6** = 54

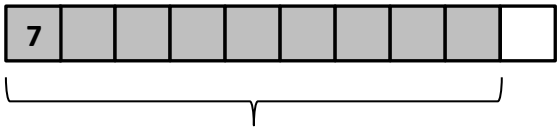


9 sixes = 10 sixes – 1 six

=_____ – 6

= _____

b. **9 × 7** = _____



9 sevens = 10 sevens – 1 seven

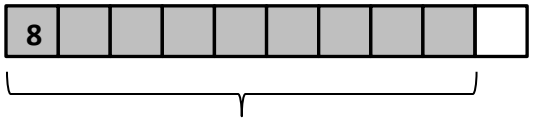
= _____ – 7

= _____

Problem Set (Your Turn):

2. Find the total value of the shaded blocks.

d. **9 × 8** =

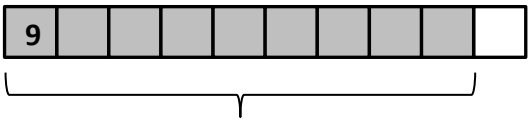


9 eights = 10 eights – 1 eight

= _____ – 8

= _____

c. **9 × 9** =



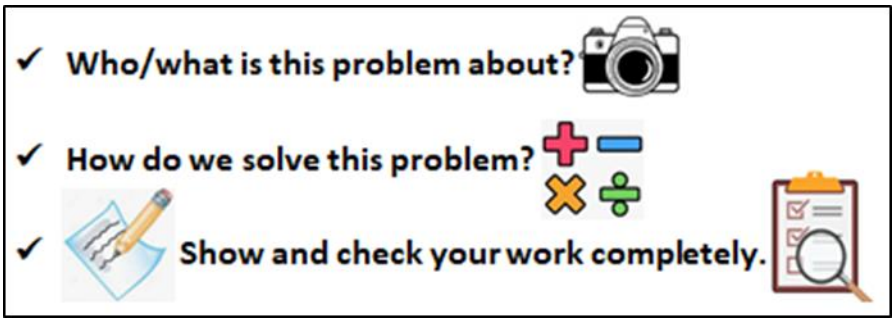
9 nines = 10 nines – 1 nine

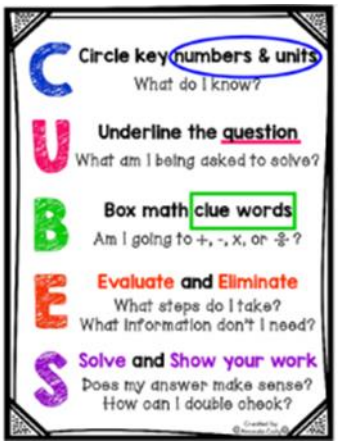
= _____ – 9

= _____

Name: _____ Week 17 Day 1 Date: _____

BCCS-B Harvard Yale Princeton





Application:

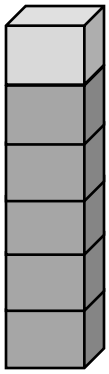
Saveon buys a pack of postage stamps. He counts 9 rows of 4 stamps. He thinks of 10 fours to find the total number of stamps. Show the strategy that Saveon might have used to find the total number of stamps.

Name: _____ Week 17 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

Exit Ticket:

1. Each  **has a value of 9. Complete the equations to find the total value of the tower of blocks.**



6 × 9 = (5 × 9) + (___× ___)

= 45 + _____

= _____

2. Elias solves 9 × 8 by subtracting 1 eight from 10 eights. Draw a model, and explain Hector's strategy.

Name: _____ Week 17 Day 1 Date: _____

BCCS-B Harvard Yale Princeton

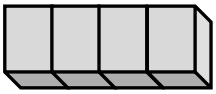
Homework: Complete number 1

1. Find the value of each row. Then, add the rows to find the total.

a. Each  has a value of 6.

9 × 6 = _____

5 × 6 = 30



4 × 6 = 24

9 × 6 = (5 + 4) × 6

= (5 × 6) + (4 × 6)

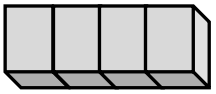
= 30 + _____

= _____

b. Each  has a value of 7.

9 × 7 = _____

5 × 7 = _____



_____ × 7 = _____

9 × 7 = (5 + _____) × 7

= (5 × 7) + (_____ × 7)

= 35 + _____

= _____

2. A scientist fills 5 test tubes with 9 milliliters of fresh water in each. She fills another 3 test tubes with 9 milliliters of salt water in each. How many milliliters of water does she use in all?

Brighter Choice
Charter School for Boys

Day # 2

Module 3: Mid Module Assessment

PRACTICE

Name: _____

Harvard Yale Princeton

1) Which expression shows the associative property as shown in the diagram below?

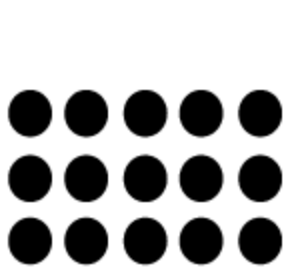
A. (4x8)+4
B. (4x2)x4
C. 4x3
D. 3x8

2) There are 49 liters of water needed to finish filling the dunk tank at the carnival. Each container holds 7 liters of water. How many containers are needed to finish filling the dunk tank?

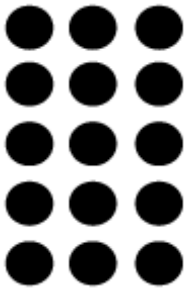
A. 56
B. 7
C. 63
D. 8

3) Which term or phrase best describes the relationship between the arrays?

A. The communitative property
B. The associative property
C. The distributive property
D. Inverse operation



3x5=15



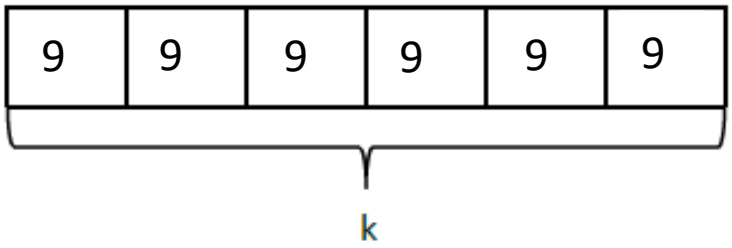
5x3=15

4) What number will satisfy the blank to make the equation below true?

(10 – 4) + 2 = _____

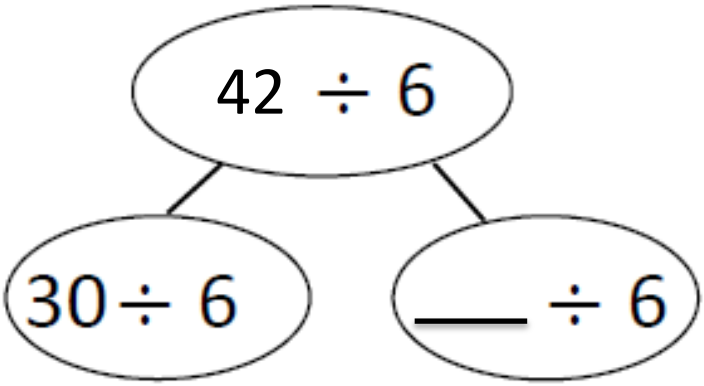
A. 16
B. 8
C. 6
D. 12

5) What is the value of *k*?



A. 45
B. 40
C. 36
D. 54

6) Which number satisfies the blank in the number bond below?

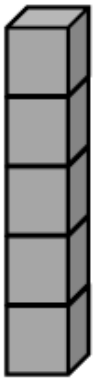


A. 2
B. 24
C. 12
D. 5

7) 32 ÷ 4 = v

v = _____
A. 6
B. 2
C. 8
D. 4

8) Each unit has a value of 6. Find the product.



A. 50
B. 36
C. 30
D. 40

9) 5 Sevens is the same as:

A. 7 fives
B. 5 sixes
C. 5 eights
D. 7 sixes

10) Jaylan spends 36 minutes practicing 6 basketball drills for an equal amount of time each. How much time does Jaylan spend on each drill?

A. 30 minutes
B. 5 minutes
C. 6 minutes
D. 36 minutes

11) Solve

_____ = (12 – 7) + 4

A. 8
B. 9
C. 11
D. 10

12) What is the answer when the parentheses are placed around 7 -3?

A. 20

B. 12

C. 16

D. 14

$4 \times 7 - 3 =$ _____

13) Use parentheses to make each equation true. *Show each step line by line.*

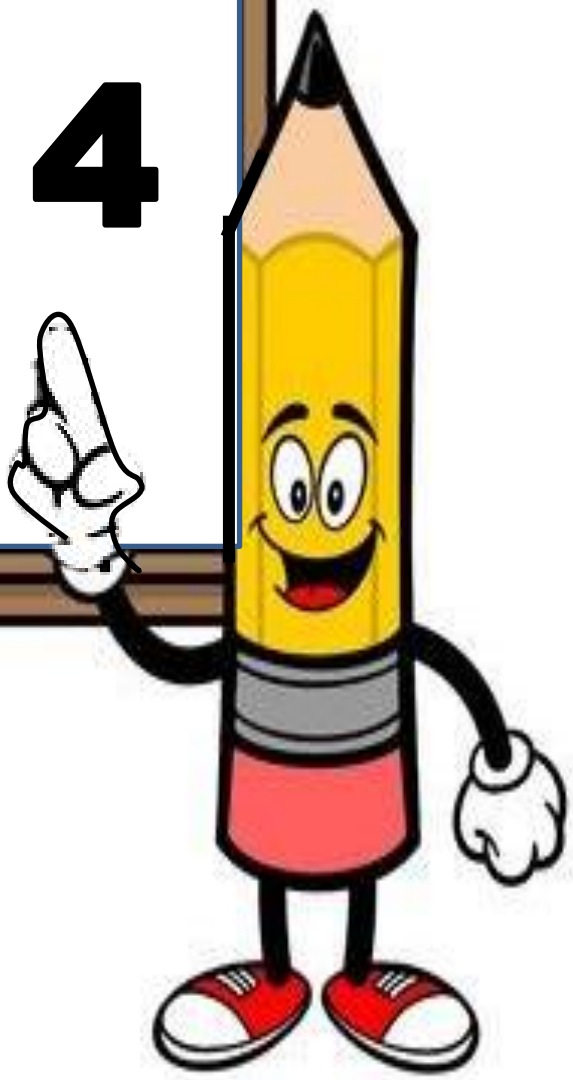
a. $21 - 11 \div 5 = 2$	b. $12 = 2 \times 25 - 19$

14) Andrew earns $8 each week for doing chores. After 6 weeks, he buys a gift and has $29 left. How much money does he spend on the gift?

Scholars will be taking the Mid Module Assessment on this day.

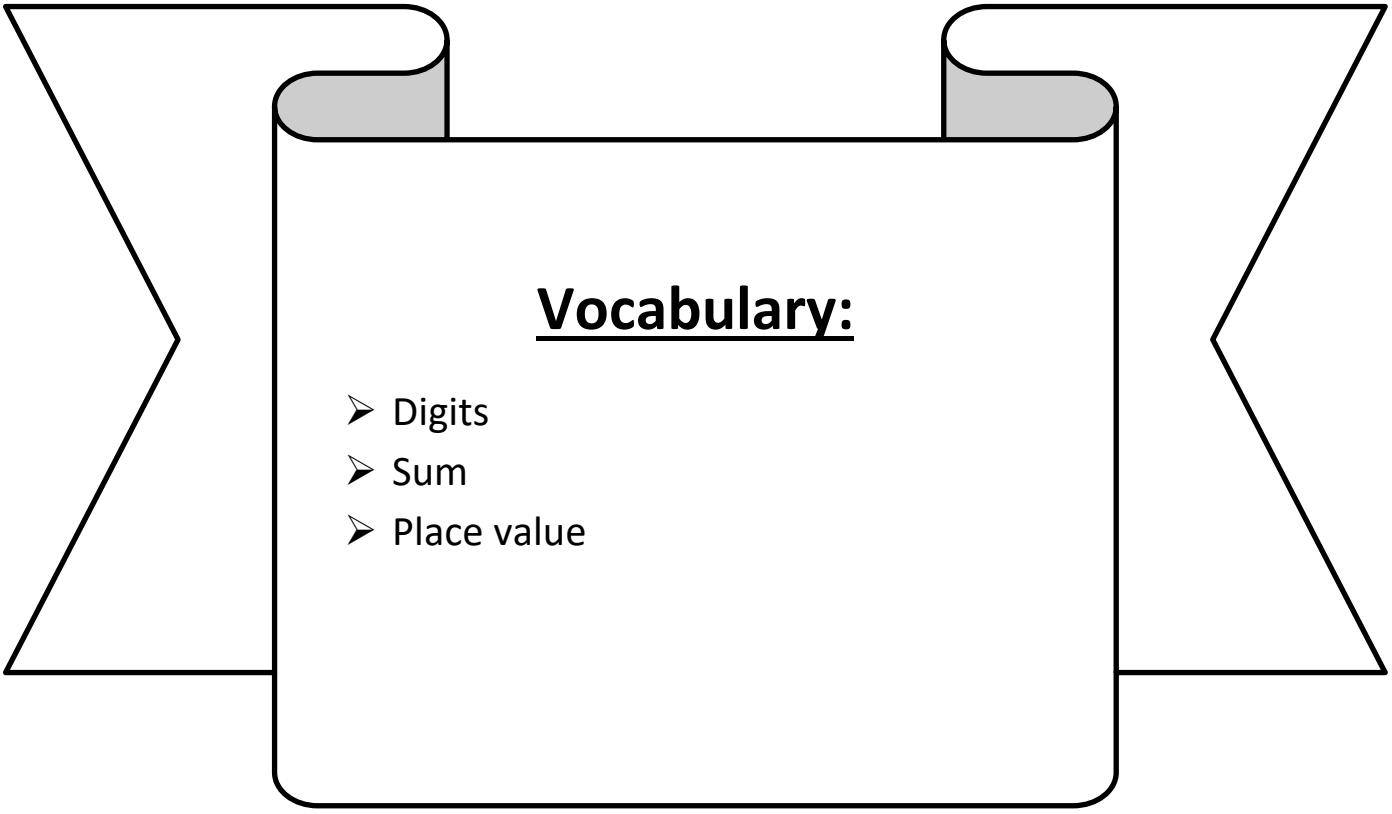
Brighter Choice
Charter School for Boys

Day # 4



LEQ: How can I use multiplication strategies to multiply nines?

Objective: I can add the digits of multiples of 9 to check my work, use the 9 finger trick, and use the place value trick to easily find products of 9.



Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

Do Now:

Addition With Regrouping

Add.

1.

	hundreds	tens	ones
		1	
	5	2	3
+	1	2	8
	6	5	1

2.

	hundreds	tens	ones
	4	6	5
+	1	9	2

3.

	hundreds	tens	ones
	2	8	9
+	2	0	4

4.

	hundreds	tens	ones
	3	4	3
+	1	7	4

5.

	hundreds	tens	ones
	6	1	7
+	2	8	9

6.

	hundreds	tens	ones
	5	9	2
+	3	2	9

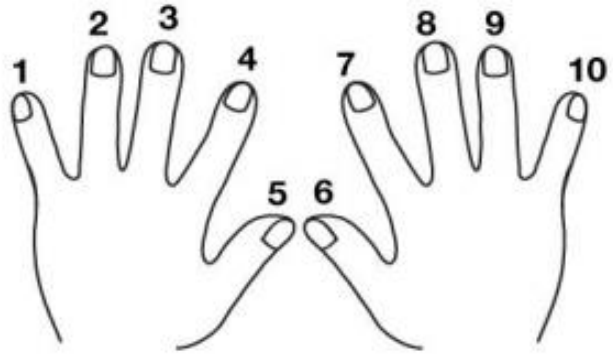
Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

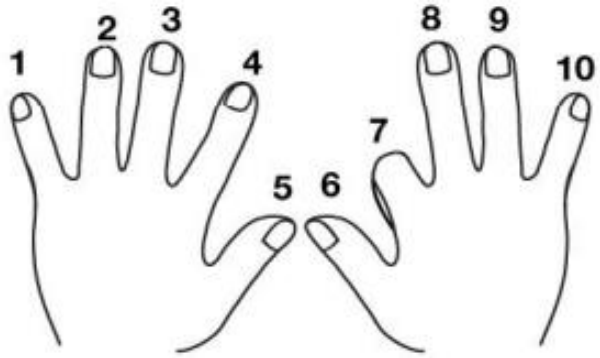
Input (My Turn):

Nine's Finger Tick

Step 1: Hold up all 10 of your fingers. Imagine they're numbered 1 through 10.

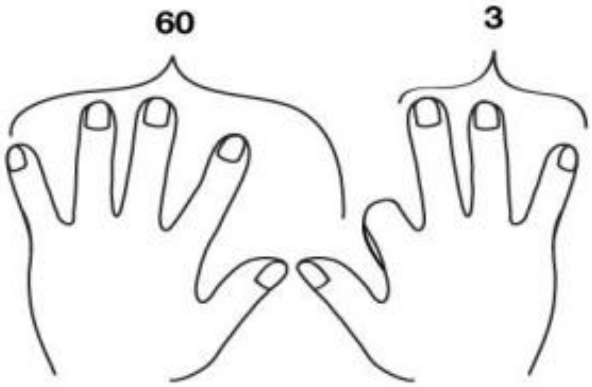


Step 2: If we're multiplying 9 x 7, you fold down the seventh finger, like this.



Step 3: Count the number of fingers to the left of the folded finger (6).

Count the number of fingers to the right of the folded finger (3). Your answer is 63.



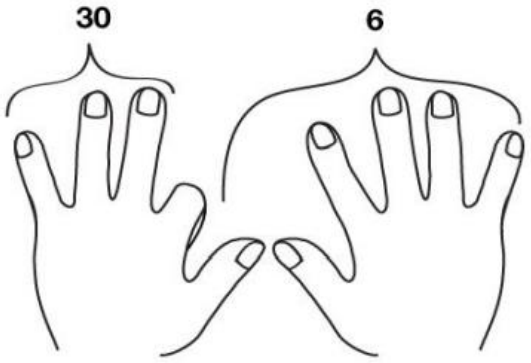
9 x 7 = 63

Name: _____ Week 17 Day 4 Date: _____

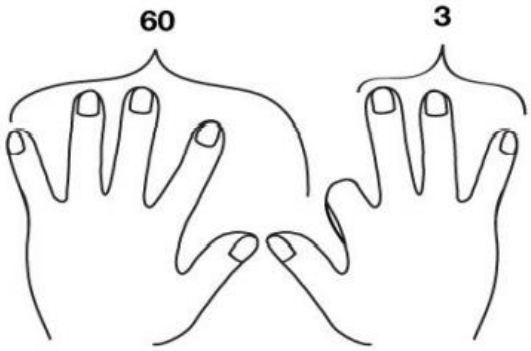
BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

1. Tell which multiplication fact is shown by the fingers in these pictures. Write the multiplication fact and the answer.



_____ x _____ = _____



_____ x _____ = _____

2. Use the nines trick to solve these multiplication facts.

9 x 8 = _____ 9 x 3 = _____

5 x 9 = _____ 6 x 9 = _____

9 x 9 = _____ 9 x 2 = _____

4 x 9 = _____ 9 x 7 = _____

Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

Nine's Digit Tick

___ **Step 1:** Make a column of numbers on your paper from 0 through 9.

___ **Step 2:** Next to your column, you're going to make another column of numbers. This time, count backwards from 9 all the way down to 0.

___ **Step 3:** You've just written all the answers to your nines times tables. Write the facts next to the numbers.

Tens	Ones	Multiplication Sentence
0	9	0 X 9 = 0
		_____ X _____ = _____
		_____ X _____ = _____
		_____ X _____ = _____
		_____ X _____ = _____
		_____ X _____ = _____
		_____ X _____ = _____
		_____ X _____ = _____
		_____ X _____ = _____
	0	_____ X _____ = _____

Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

1 a. Multiply. Then, add the digits in each product.

10 × 9 = 90	9 + 0 = 9
9 × 9 = 81	8 + 1 = 9
8 × 9 =	_____ + _____ = _____
7 × 9 =	_____ + _____ = _____
6 × 9 =	_____ + _____ = _____
5 × 9 =	_____ + _____ = _____
4 × 9 =	_____ + _____ = _____
3 × 9 =	_____ + _____ = _____
2 × 9 =	_____ + _____ = _____
1 × 9 =	_____ + _____ = _____

b. What pattern did you notice in Problem 1(a)? How can this strategy help you check your work with nines facts?

The pattern I noticed was

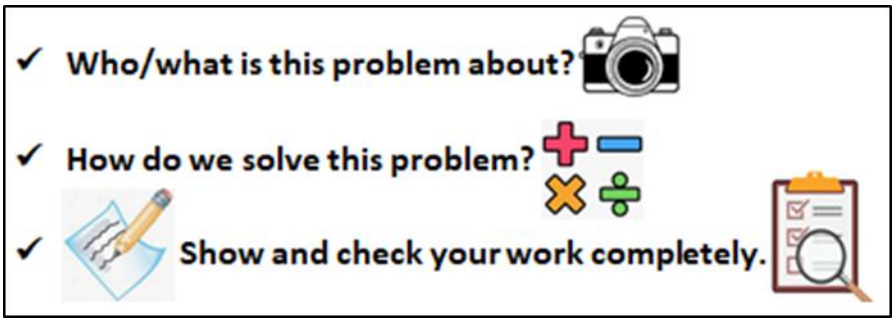
_____

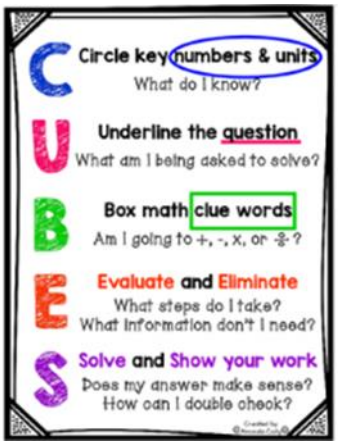
_____

_____

Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton





Application:

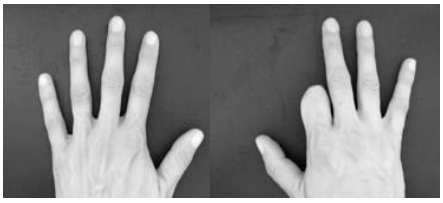
Ahmed writes 6 × 9 = 54. Is he correct? Explain **two** strategies you could use to check his work.

Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

Exit Ticket:

1. Zaymir figures out the answer to 7 × 9 by putting down his right index finger (shown). What is the answer?



2. Mrs. Blomgren figures out the answer to 6 × 9 by lowering the thumb on her right hand (shown). What is the answer?

Name: _____ Week 17 Day 4 Date: _____

BCCS-B Harvard Yale Princeton

Homework:

1 a. Multiply. Then, add the tens digit and ones digit of each product.

1 × 9 =	9	0	$\underset{1}{\_\_9\_\_} + \underset{8}{\_\_9\_\_} = \_\_\_\_\_$
2 × 9 =			_____ + _____ = __18____
3 × 9 =			_____ + _____ = _____
4 × 9 =			_____ + _____ = _____
5 × 9 =			_____ + _____ = _____
6 × 9 =			_____ + _____ = _____
7 × 9 =			_____ + _____ = _____
8 × 9 =			_____ + _____ = _____
9 × 9 =			_____ + _____ = _____
10 × 9 =		_____ + _____ = _____	

b. Araceli continues to count by nines. She writes, "90, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 189, 198. Wow! The sum of the digits is still 9." Is she correct? Why or why not?

_____

_____

_____

_____

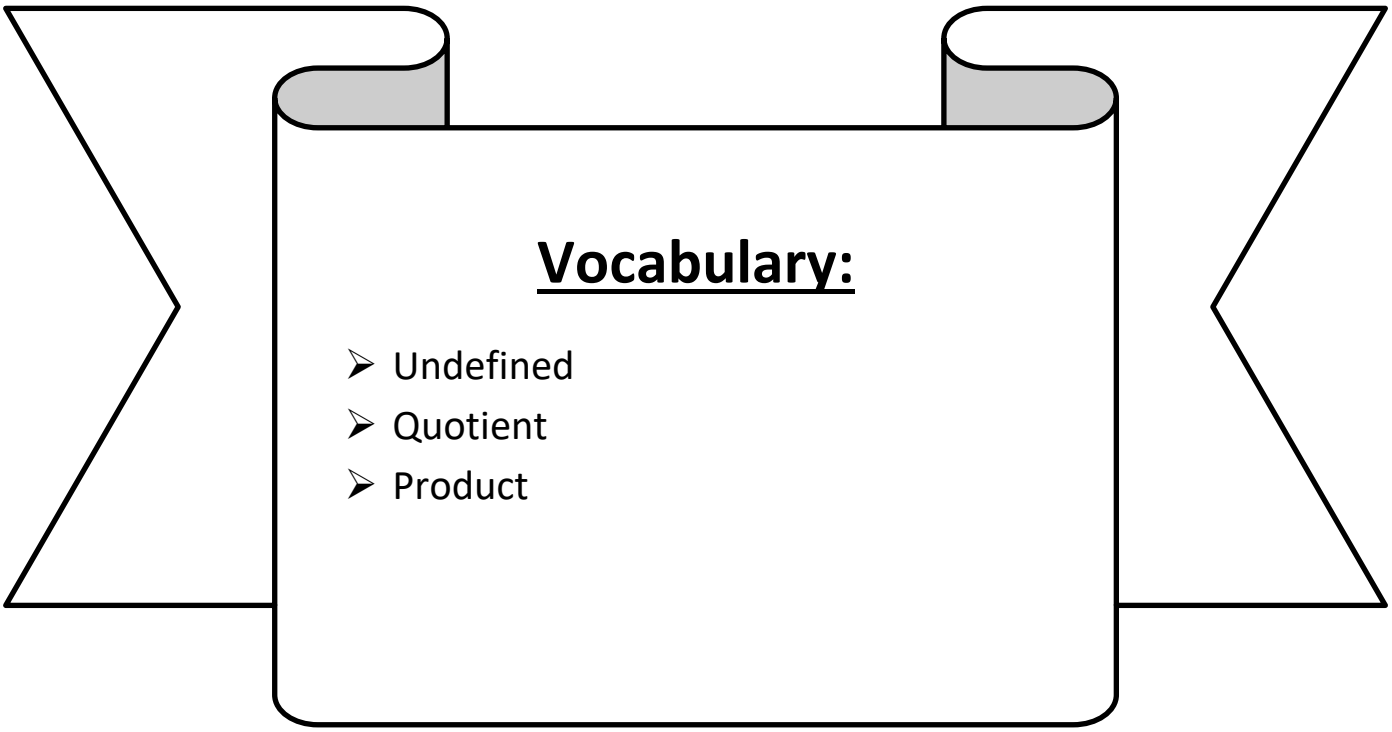
_____

Brighter Choice
Charter School for Boys

Day # 5

LEQ: How can I multiply and divide by 1 and 0?

Objective: I can use a set of rules to multiply and divide by 1 and 0.



Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Do Now:

9 x 1 = 9	9 x 2 = 18	9 x 3 = 27	9 x 4 = 36
9 x 5 = _____	9 x 1 = _____	9 x 2 = _____	9 x 1 = _____
9 x 3 = _____	9 x 1 = _____	9 x 4 = _____	9 x 1 = _____
9 x 5 = _____	9 x 1 = _____	9 x 2 = _____	9 x 3 = _____
9 x 2 = _____	9 x 4 = _____	9 x 2 = _____	9 x 5 = _____
9 x 2 = _____	9 x 1 = _____	9 x 2 = _____	9 x 3 = _____
9 x 1 = _____	9 x 3 = _____	9 x 2 = _____	9 x 3 = _____
9 x 4 = _____	9 x 3 = _____	9 x 5 = _____	9 x 3 = _____
9 x 4 = _____	9 x 1 = _____	9 x 4 = _____	9 x 2 = _____
9 x 4 = _____	9 x 3 = _____	9 x 4 = _____	9 x 5 = _____
9 x 4 = _____	9 x 5 = _____	9 x 1 = _____	9 x 5 = _____
9 x 2 = _____	9 x 5 = _____	9 x 3 = _____	9 x 5 = _____
9 x 4 = _____	9 x 2 = _____	9 x 4 = _____	9 x 3 = _____
9 x 5 = _____	9 x 3 = _____	9 x 2 = _____	9 x 4 = _____
9 x 3 = _____	9 x 5 = _____	9 x 2 = _____	9 x 4 = _____

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

1 Multiplication Rule: Any number multiplied by 1 has a product of itself.

Example: 1 x 6 = 6

0 Multiplication Rule: Any number multiplied by 0 has a product of 0.

Example: 9 x 0 = 0

1 _____ X 4 = 4	0 X 2 = ____	9 X ____ = 0
5 X 1 = _____	1 X 10 = ____	0 X 1 = ____
0 X ____ = 0	100 X ____ = 100	1 X ____ = 1

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

1 Multiplication Rule: Any number multiplied by 1 has a product of itself.

Example: 1 x 6 = 6

0 Multiplication Rule: Any number multiplied by 0 has a product of 0.

Example: 9 x 0 = 0

1 _____ X 7 = 7	0 X 50 = ____	3 X ____ = 0
18 X 1 = _____	1 X 20 = ____	1 X 0 = ____
0 X ____ = 0	103 X ____ = 103	1 X 1 = ____
14 x ___ = 14	0 x 1,000 = _____	0 x 4 = ____

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Input (My Turn):

1 Division Rule: Any number divided by itself has a quotient of 1. Any number divided by one has a quotient of itself.

0 Division Rule: 0 divided by any number is 0. Any number divided by 0 is undefined because no number multiplied by 0 will result in a non-zero product.

$7 \div 7 = \underline{1}$	$10 \div 1 =$ ____	$0 \div 3 =$ ____
$4 \div$ ____ $= 1$	$12 \div$ ____ $= 12$	____ $\div 8 = 0$
$1 \div$ ____ $= 1$	$0 \div 1 = \underline{0}$	$5 \div 1 =$ ____

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Problem Set (Your Turn):

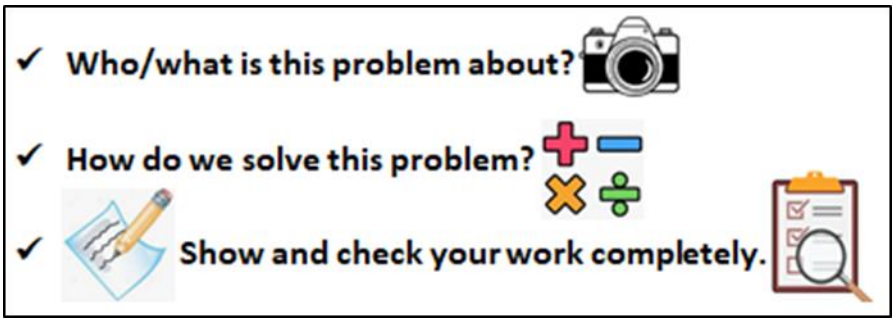
1 Division Rule: Any number divided by itself has a quotient of 1. Any number divided by one has a quotient of itself.

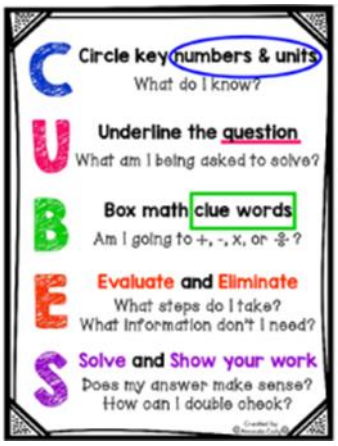
0 Division Rule: 0 divided by any number is 0. Any number divided by 0 is undefined because no number multiplied by 0 will result in a non-zero product.

$5 \div 5 = \underset{1}{\_\_\_\_\_}$	$12 \div 1 =$ _____	$0 \div 9 =$ _____
$19 \div$ _____ $= 1$	$100 \div$ _____ $= 100$	_____ $\div 4 = 0$
$1 \div 1 =$ _____	$0 \div 7 =$ _____	$10 \div 1 =$ _____
$0 \div 14 =$ _____	$3 \div$ _____ $= 1$	$0 \div 72 =$ _____

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton





Application:

Saad has 100 friends over to his birthday party. Each person brings the same number of gifts. How many gifts did each person bring? Write a multiplication and division equation.

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

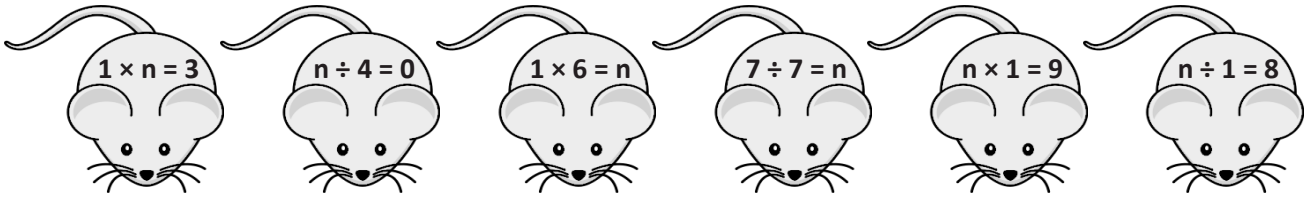
Exit Ticket:

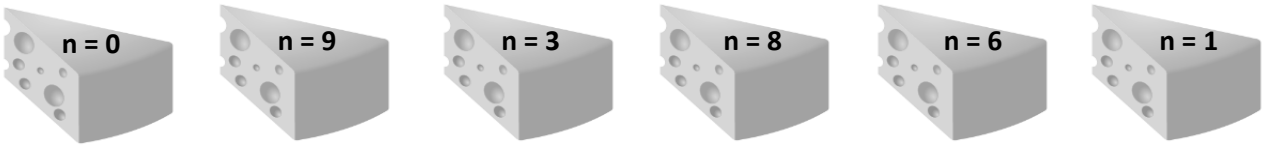
1. Complete.

a. _____ × 1 = 6 b. _____ ÷ 7 = 0 c. 8 × _____ = 8 d. 9 ÷ _____ = 9

e. 0 ÷ 5 = _____ f. _____ × 0 = 0 g. 4 ÷ _____ = 1 h. _____ × 1 = 3

2. Match each equation with its solution.





Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Homework:

1. Complete. Complete number two.

a. _____ × 1 = 5 b. 6 × _____ = 6 c. _____÷ 7 = 0

b. 5 × _____ = 0 e. 1 = 9 ÷ _____ f. 8 = 1 × _____

2. Luis divides 8 by 0 and says it equals 0. Is he correct? Explain why or why not.

_____

_____

_____

_____

_____

Name: _____ Week 17 Day 5 Date: _____

BCCS-B Harvard Yale Princeton

Homework:

3. Match each equation with its solution.