Name
Brighter Choice Charter School for Boys
$\qquad$

## $4^{\text {th }}$ Grade Math Remote Learning Packet

## Week 11



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.

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.

## Connect while at Home!

Subscribe to my YouTube Channel to catch up with previously taught lessons or refer back to Math concepts if you are to need additional assistance.


| Look up by the name of the <br> channel | $\longrightarrow$ | Melissa Lewis |
| :--- | :--- | :--- |

or



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- Please do not remove any pages from either packet.


Name: $\qquad$
BCCS-B

Week 11 Day 1 Date: $\qquad$
Howard Morehouse Hampton

LEQ: How can I use formulas to solve various problems that involve area and perimeter?

Objective: I can use the formulas I have been taught to solve problems that involve area and perimeter.

## Do Now

Using the digits $1,2,3,4$ and 5 only once, create a 5 digit number. Write that number in standard, expanded and word form.

Standard form: $\qquad$
Expanded form: $\qquad$
Word form: $\qquad$
Input
Today we are going to review solving problems that involve $\qquad$ and $\qquad$ . Let's first go over the formulas and definitions of both.

## Area

https://www.youtube.com/watch?v=CgqgY7a630Q
Area is $\qquad$
To find the area we multiply $\qquad$

Area $=\mathrm{L} \times \mathrm{W}$
Area $=\ldots$
Area $=\ldots$

Name: $\qquad$

BCCS-B

Input


Area $=\mathrm{L} \times \mathrm{W}$

Area= $\qquad$ x $\qquad$

Area= $\qquad$

Howard Morehouse Hampton
Week 11 Day 1 Date: $\qquad$

## Perimeter

https://www.youtube.com/watch?v=dlHyZ1Hme1s

Perimeter is $\qquad$

To find the perimeter we add $\qquad$

Perimeter $=s+s+s+s$
Perimeter= $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$
Perimeter= $\qquad$

A rectangular living room has a width of 23 ft and a length of 32 ft . What is the perimeter of the living room?

Perimeter $=s+s+s+s$

Perimeter= $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$
$\qquad$
Perimeter= $\qquad$

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## Your Turn

Find the area of the shapes below using the formula that you have learned.


Area= $\qquad$
Find the perimeter of the shapes below using the formula that you have learned.
76 in.
11in $\square$

## Perimeter=

$\qquad$

32 cm .

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## Input

Sometimes a rectangle can have the same area but different side lengths.
For example, let's say the rectangle below has an area of 24 sq. units. What are a set of possible side lengths? Take a minute to think.


| Length | Width |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |

One rectangle can have several different combinations of sides.

## Your Turn

If a rectangle has an area of 18 sq. units, what are the possible side lengths of this shape?


## Input

How do I find the missing side of a shape when I know the area or perimeter?
When we know the area of a shape we can use what we know about
$\qquad$ to help us find a missing side.

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For example:
Sketch a rectangle with an area of 12 and a width of 3 .

We can think: $\qquad$ $x 3=12$ or 12 divided by $3=$ ?

Both of these thoughts will help find a missing side when we know the area.
The missing side is $\qquad$
Try this one:

$x=$ $\qquad$

Your Turn:

7 cm
 $x \mathrm{~cm}$
$x=$ $\qquad$

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When we know the perimeter and a one side, finding the missing side takes a little more work.

- Double the side we know
- Subtract is from the perimeter
- Divide what's left by 2

The perimeter of the rectangle below is 26 units. It has a width of 5 units and a missing length. What is it the missing length?


- Double the width: $5+5(5 \times 2)=10$
- Subtract $26-10=16$
- Divide by 2 (what's half?) half of 16 is 8
- The length is 8 units.


## Try these:

a. $P=120 \mathrm{~cm}$
20 cm

$x=$ $\qquad$
b. $P=1,000 \mathrm{~m}$


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Week 11 Day 1 Date: $\qquad$
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## Application Problem

A blanket is 4 feet wide. It is 3 times as long as it is wide.
a. Draw a diagram of the blanket, and label its dimensions.
b. Find the perimeter and area of the blanket.

Area= $\qquad$
$\qquad$

## Exit Ticket-google form




Name: $\qquad$
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Week 11 Day 2 Date: $\qquad$ Howard Morehouse Hampton

LEQ: How can I use patterns and zero rule to help multiply multiples of 10, 100 and 1,000.

Objective: I can multiply by multiples of 10,100 and 1000.

## Do Now

A poster is 3 inches long. It is 4 times as wide as it is long.
a. Draw a diagram of the poster, and label its dimensions.
b. Find the perimeter and area of the poster.
$\qquad$ area= $\qquad$

## Input

Drop the Eggs (the Zero Rule)
 https://www.youtube.com/watch?v=zXPdU-FWrkY

- How many zeroes are in the problem?-drop the zeros
- Multiply what's left.
- Bring back the same amount of zeros that you dropped.

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Week 11 Day 2 Date: $\qquad$
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## Input

Find the product.

| a. $20 \times 7$ | b. $3 \times 60$ | c. $3 \times 400$ | d. $2 \times 800$ |
| :--- | :--- | :--- | :--- |

Try These:

| e. $7 \times 30$ | f. $60 \times 6$ | g. $400 \times 4$ | h. $4 \times 8,000$ |
| :--- | :--- | :--- | :--- |
| i. $5 \times 30$ | j. $5 \times 60$ | $\mathrm{k} .5 \times 400$ | I. $8,000 \times 5$ |

Sometimes there are zeros in $\qquad$ the numbers we are . We can solve these types of problems the same way!

For example:
$20 \times 40=$ ?
This equation has 2 zeros. We can $\qquad$ both of the zeros and multiply
$2 \times 4$.
$2 \times 4=$ $\qquad$
Now, bring back the 2 zeros we took away. $20 \times 40=$ $\qquad$

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Try These!

| $20 \times 20$ | $60 \times 20$ | $70 \times 20$ | $70 \times 30$ |
| :--- | :--- | :--- | :--- |

## Application Problem

Jordan has twenty times as many baseball cards as his brother. His brother has 9 cards. How many cards does Jordan have?

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## Exit Ticket-ed light

One ticket to the symphony costs $\$ 50$. How much money is collected if 80 tickets are sold?


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Week 11 Day 3 Date: $\qquad$
Howard Morehouse Hampton

LEQ: How does partial products relate to a standard algorithm?
Objective: I can use partial products to support a standard algorithm when multiplying multi-digit numbers.

## Do Now

Every night, Eloise reads 40 pages. How many total pages does she read at night during the 30 days of November?

We have learned how to multiply multi-digit numbers using partial products, area models and a standard algorithm.

Partial Products: Taking a number and $\qquad$ into $\qquad$ to make multiplying easier.


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Input

## Partial Products Multiplication

1. Multiply the ones
2. Multiply the tens
3. Multiply the hundreds
4. Multiply the thousands
5. Add partial products together
$425 \times 4$

| Partial Products | Standard Algorithm |
| :--- | :--- |
|  |  |
|  |  |

Your Turn: $534 \times 7$

| Partial Products | Standard Algorithm |
| :--- | :--- |
|  |  |
|  |  |

Name:
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Input
$4,458 \times 3$

| Partial Products | Standard Algorithm |
| :--- | :--- |
|  |  |
|  |  |

Your Turn
$3,455 \times 4$

| Partial Products | Standard Algorithm |
| :--- | :--- |
|  |  |
|  |  |

## Application Problem

A cafeteria makes 4,408 lunches each day. How many lunches are made Monday through Friday?

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Week 11 Day 3 Date:
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## Exit Ticket-ed light

Model with a tape diagram and solve.
4 times as much as 467


Today you are taking your mid-module assessment. First, you will take the multiple choice using the google form posted in your math classroom. Then, you will answer the open response questions and use ed light to submit the answers. Use the space below to for each open response question.

Number 11

Number 12


Name: $\qquad$
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LEQ: How can I use CUBES to solve word problems that include multiplicative word problems?

Objective: I can use CUBES and what I have learned about multiplying large numbers to solve real word problems.

## Do Now

| A |
| :--- |
| Mental Multiplication |
| 苼 |
| 1. |


| 23. | $21 \times 3=$ |  |
| :---: | :---: | :--- |
| 24. | $121 \times 3=$ |  |
| 25. | $42 \times 2=$ |  |
| 26. | $142 \times 2=$ |  |
| 27. | $242 \times 2=$ |  |
| 28. | $342 \times 2=$ |  |
| 29. | $442 \times 2=$ |  |
| 30. | $3 \times 3=$ |  |
| 31. | $13 \times 3=$ |  |
| 32. | $213 \times 3=$ |  |
| 33. | $1,213 \times 3=$ |  |
| 34. | $2,113 \times 3=$ |  |
| 35. | $2,131 \times 3=$ |  |
|  |  |  |

Name: $\qquad$ BCCS-B

B

| MentalMultiplication |  |  |
| :---: | :---: | :--- |
| 䒜 | $1 \times 6=$ |  |
| 2. | $10 \times 6=$ |  |
| 3. | $11 \times 6=$ |  |
| 4. | $1 \times 2=$ |  |
| 5. | $30 \times 2=$ |  |
| 6. | $31 \times 2=$ |  |
| 7. | $3 \times 3=$ |  |
| 8. | $20 \times 3=$ |  |
| 9. | $23 \times 3=$ |  |
| 10. | $20 \times 5=$ |  |
| 11. | $25 \times 5=$ |  |
| 12. | $2 \times 4=$ |  |
| 13. |  |  |

Week 11 Day 5 Date: $\qquad$
Howard Morehouse Hampton

Number Correct: $\qquad$
Improvement: $\qquad$

| 23. | $21 \times 4=$ |  |
| :---: | :---: | :---: |
| 24. | $121 \times 4=$ |  |
| 25. | $24 \times 2=$ |  |
| 26. | $124 \times 2=$ |  |
| 27. | $224 \times 2=$ |  |
| 28. | $324 \times 2=$ |  |
| 29. | $424 \times 2=$ |  |
| 30. | $3 \times 2=$ |  |
| 31. | $13 \times 2=$ |  |
| 32. | $213 \times 2=$ |  |
| 33. | 1,213 $\times 2=$ |  |
| 34. | 2,113 $\times 2=$ |  |
| 35. | 2,131 $\times 2=$ |  |

Name:
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Week 11 Day 5 Date:
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## Input

Over the summer, Kate earned $\$ 180$ each week for 7 weeks. Of that money, she spent $\$ 375$ on a new computer and $\$ 137$ on new clothes. How much money did she have left? Use CUBES to solve.

C
U
B
E
S

## Your Turn

Michael earns $\$ 9$ per hour. He works 28 hours each week. How much does he earn in 6 weeks?

C
U
B
E
S

Name:
BCCS-B

Week 11 Day 5 Date: $\qquad$
Howard Morehouse Hampton
Input

A pair of jeans costs $\$ 89$. A jean jacket costs twice as much. What is the total cost of a jean jacket and 4 pairs of jeans?

## Application Problem

Sylvia weighed 8 pounds when she was born. By her first birthday, her weight had tripled. By her second birthday, she had gained 12 more pounds. At that time, Sylvia's father weighed 5 times as much as she did. What was Sylvia and her dad's combined weight?

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## $4^{\text {th }}$ Grade Math Remote Learning Packet

## Week 12



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Name: $\qquad$
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Week 12 Day 1 Date: $\qquad$
Howard Morehouse Hampton

LEQ: How can I use a place value chart model the multiplication of a multiple of 10 and a 2 digit number?

Objective: I can multiply a multiple of 10 by a 2 digit number with and without a place value chart. I can use what I have learned about area models and apply it to solving a 2 digit by 2 digit multiplication problem.

## Do Now

Sam read his book 30 minutes a day after school every day for the whole month of November. If there are 30 days in November, how many total minutes did he read his book for I that month?

## Input

Problem $40 \times 22$ in a place value chart
We can think about this problem as $4 \times 22$ to make the multiplication easier and read it as 4 groups of 22 . In the chart below model 4 groups of 22.

| Hundreds | Tens | Ones |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |

Name:
BCCS-B
$\qquad$

Week 12 Day 1 Date: $\qquad$
Howard Morehouse Hampton Input

## Problem 2

$50 \times 31$

In the chart model $5 \times 31$

| Hundreds | Tens | Ones |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

Your Turn
$30 \times 24$

| Hundreds | Tens | Ones |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

Name:
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$40 \times 43$

| thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Application Problem
Mr. Goggins planted 10 rows of beans, 10 rows of squash, 10 rows of tomatoes, and 10 rows of cucumbers in his garden. He put 22 plants in each row. Draw an area model, label each part, and then write an expression that represents the total number of plants in the garden?

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Week 12 Day 1 Date: $\qquad$
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Exit Ticket - google form
$20 \times 41$

| Hundreds | Tens | Ones |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

$63 \times 30$

| Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



Name: $\qquad$
BCCS-B
LEQ: How can I relate an area model to a standard 2 digit by 2 digit algorithm? Objective: I can use what I have learned about area models and apply it to solving a 2 digit by 2 digit multiplication problem. I can use what I have learned about area models and apply it to solving a 2 digit by 2 digit multiplication problem.

## Do Now

$43 \times 30$

| Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Input
https://www.youtube.com/watch?v=WYJsQo7ZTC4
$30 \times 25$ using an area model

1. Draw a rectangle
2. Place the multiple of ten on the side
3. Break apart the $2^{\text {nd }}$ number across the top into tens and ones
4. Multiply to get partial products
5. Add the partial products together

Name:
BCCS-B
$60 \times 34$ using an area model


You try!
Draw an area model to solve:
$70 \times 34$
$40 \times 27$

Name:
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Week 12 Day 2 Date: $\qquad$
Howard Morehouse Hampton

## Application Problem

Ms. Lewis bout 50 boxes on new pencils and each box contained 22 pencils. How many total pencils did she buy in all? Use CUBES to solve.

## Exit Ticket-ed light

$20 \times 22$ $\square$


Name: $\qquad$
BCCS-B

Week 12 Day 3 Date: $\qquad$
Howard Morehouse Hampton

LEQ: How can I relate an area model to a standard 2 digit by 2 digit algorithm?
Objective: I can use what I have learned about area models and apply it to solving a 2 digit by 2 digit multiplication problem. I can use what I have learned about area models and apply it to solving a 2 digit by 2 digit multiplication problem.

## Do Now

Draw an area model to solve $80 \times 15$

Today we are going to continue our practice of solving 2 digit multiplication problems but today we will relate it to using a standard algorithm model as well. Let's review what an area model is and how we use it by watching a quick video.
https://www.youtube.com/watch?v=WYJsQo7ZTC4

Name:
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Problem 1:
$20 \times 22$

You Try!
$50 \times 41$
Prober


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Name:
BCCS-B
Problem 2:
$60 \times 73$

You Try!
$80 \times 32$
$60 \times 73$


Week 12 Day 3 Date: $\qquad$ Howard Morehouse Hampton Howard Morehouse Hampton


Stack you problem like the one above.

This time draw your own area model and stack your problem like we have been. $80 \times 32$

Name:
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Week 12 Day 3 Date: $\qquad$
Howard Morehouse Hampton

## Application Problem

To prepare for a marathon, Sam ran 23 minutes a day for 60 days in a row. How many total minutes did Sam run? Use CUBES to solve.

Exit Ticket-google form
$30 \times 93$

$50 \times 34=$ $\qquad$


Name: $\qquad$
BCCS-B

Week 12 Day 4 Date: $\qquad$
Howard Morehouse Hampton

LEQ: How can I relate an area model to a standard 2 digit by 2 digit algorithm?
Objective: I can use what I have learned about area models and apply it to solving a 2 digit by 2 digit multiplication problem.

## Do Now

Solve.
$40 \times 76$


## Input

Today we are going to be using what we know about area models and multiplication to solve 2 digit by 2 digit problems. The video that we are about to view shows us how to set up our problems when we do not have any zeros.
https://www.youtube.com/watch?v=MVZRD4Fa1OY

Name:
BCCS-B

Week 12 Day 4 Date:
Howard Morehouse Hampton
Input

Problem 1: $34 \times 35$
Step 1: draw an area model
Step 2: break apart the first number down the side of the area model by tens and ones

Step 3: break apart the $2^{\text {nd }}$ number across the top of the area model also by tens and ones

Step 4: multiply to get 4 partial products
Step 5: add all partial products together.


Name:
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$23 \times 31$
Week 12 Day 4 Date:
Howard Morehouse Hampton


Your Turn
$26 \times 34$


Try this one, and draw your own area model: $45 \times 24$

Name:
BCCS-B

Week 12 Day 4 Date: $\qquad$
Howard Morehouse Hampton

## Application Problem

Henry was taking a cross country bike ride. He rode for a total of 84 days. Each of those he rode his bike for 65 miles. How many total miles did he ride in those 84 days?
$\square$

## Exit Ticket-ed light

Draw an area model first to support your work, or draw the area model last to check your work.

1. $26 \times 43$


Name:
BCCS-B
Today we are taking a quiz on what we have practiced this week. Let's watch a quick video and do some practice questions before we get started!
https://www.youtube.com/watch?v=n3q3XzzIGSY
$45 \times 30$

$34 \times 72$


Frank needs to cut 36 pieces of ribbon for the gifts that he is wrapping. If each piece of ribbon he cuts is 45 inches, how many total inches of ribbon does he cut?

