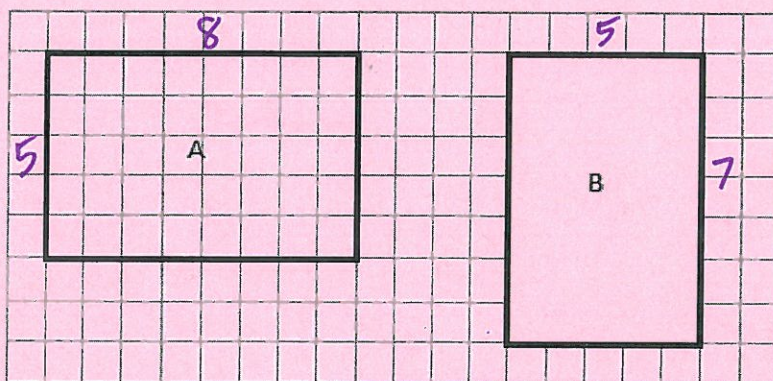


Name KEY

Date _____

1. Determine the perimeter and area of rectangles A and B.

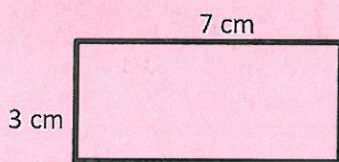


A = 40 units²
 P = 26 units

A = 35 units²
 P = 24 units

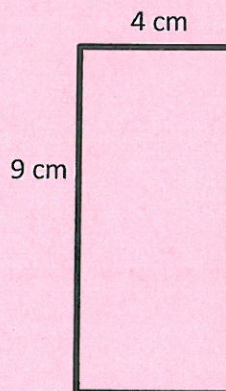
2. Determine the perimeter and area of each rectangle.

a.



P = 20 cm
 A = 21 cm²

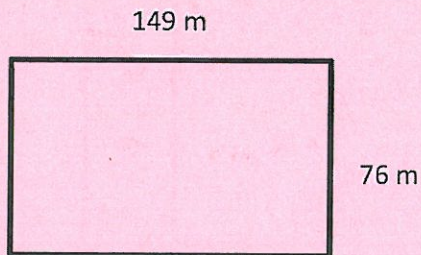
b.



P = 26 cm
 A = 36 cm²

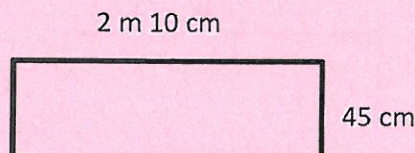
3. Determine the perimeter of each rectangle.

a.



P = 450 m

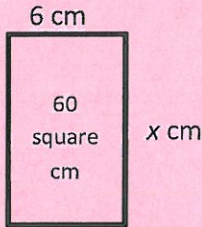
b.



P = 510 cm or 5 m 10 cm

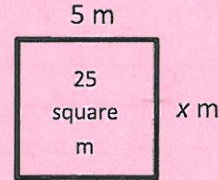
4. Given the rectangle's area, find the unknown side length.

a.



$$x = \underline{10 \text{ cm}}$$

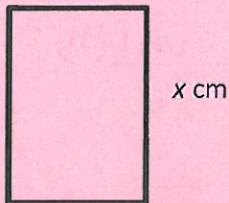
b.



$$x = \underline{5 \text{ m}}$$

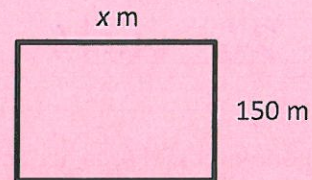
5. Given the rectangle's perimeter, find the unknown side length.

a. $P = 180 \text{ cm}$ 40 cm



$$x = \underline{50 \text{ cm}}$$

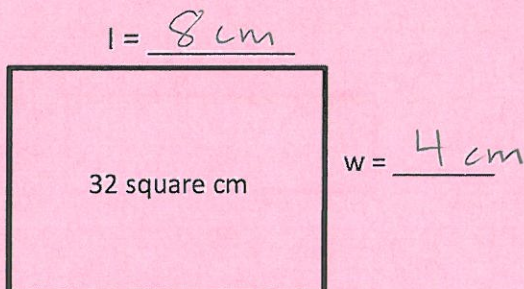
b. $P = 1,000 \text{ m}$



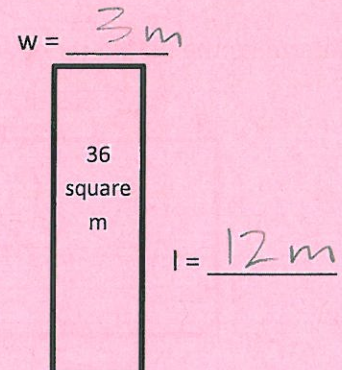
$$x = \underline{350 \text{ m}}$$

6. Each of the following rectangles has whole number side lengths. Given the area and perimeter, find the length and width.

a. $A = 32 \text{ square cm}$
 $P = 24 \text{ cm}$



b. $A = 36 \text{ square m}$
 $P = 30 \text{ m}$

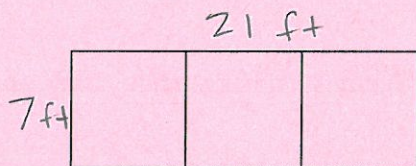


Name _____

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1. A rectangular pool is 7 feet wide. It is 3 times as long as it is wide.

- a. Label the diagram with the dimensions of the pool.

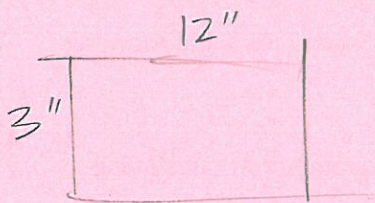


- b. Find the perimeter of the pool.

$$7 + 7 + 21 + 21 = 56 \text{ ft}$$

2. A poster is 3 inches long. It is 4 times as wide as it is long.

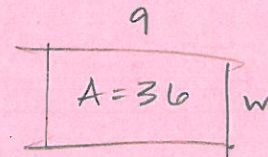
- a. Draw a diagram of the poster and label its dimensions.



- b. Find the perimeter and area of the poster.

$$P = 30 \text{ in}$$
$$A = 36 \text{ in}^2$$

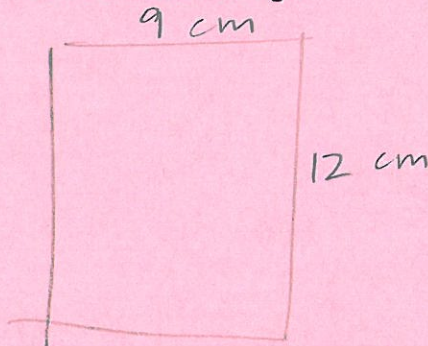
3. The area of a rectangle is 36 square centimeters and its length is 9 centimeters.



- a. What is the width of the rectangle?

4 cm

- b. Elsa wants to draw a second rectangle that is the same length but is 3 times as wide. Draw and label Elsa's second rectangle.

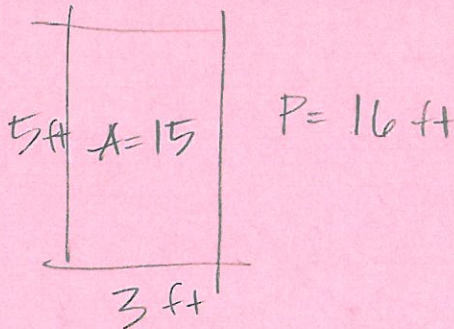


- c. What is the perimeter of Elsa's second rectangle?

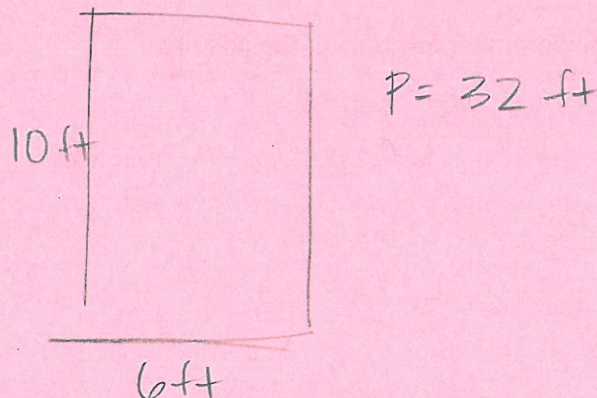
42 cm

4. The area of Nathan's bedroom rug is 15 square feet. The longer side measures 5 feet. His living room rug is twice as long and twice as wide as the bedroom rug.

- a. Draw and label a diagram of Nathan's bedroom rug. What is its perimeter?



- b. Draw and label a diagram of Nathan's living room rug. What is its perimeter?



- c. What is the relationship between the two perimeters?

The perimeter of the living room rug is double the perimeter of the bedroom rug.

- d. Find the area of the living room rug using the formula $A = l \times w$.

$$10 \times 6 = 60 \text{ ft}^2$$

- e. The living room rug has an area that is how many times that of the bedroom rug?

4 times as much $(15 \times 4 = 60)$

- f. Compare how the perimeter changed with how the area changed between the two rugs. Explain what you notice using words, pictures, or numbers.

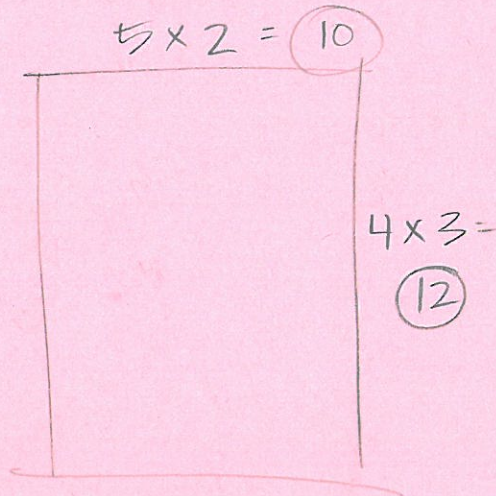
When the sides are doubled, the perimeter will double but the area will quadruple.

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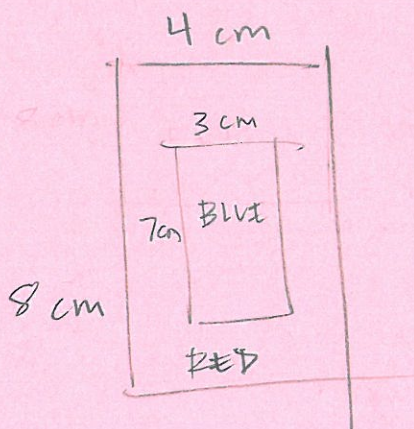
Solve the following problems. Use pictures, numbers, or words to show your work.

1. Katie cut out a rectangular piece of wrapping paper that was 2 times as long and 3 times as wide as the box that she was wrapping. The box was 5 inches long and 4 inches wide. What is the perimeter of the wrapping paper that Katie cut?



$$10 + 10 + 12 + 12 = 44 \text{ inches}$$

2. Alexis has a rectangular piece of red paper that is 4 centimeters wide. Its length is twice its width. She glues a rectangular piece of blue paper on top of the red piece measuring 3 centimeters by 7 centimeters. How many square centimeters of red paper will be visible on top?



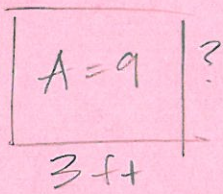
$$8 \times 4 = 32 \rightarrow \text{RED}$$

$$7 \times 3 = 21 \rightarrow \text{BLUE}$$

$$11 \text{ cm}^2$$

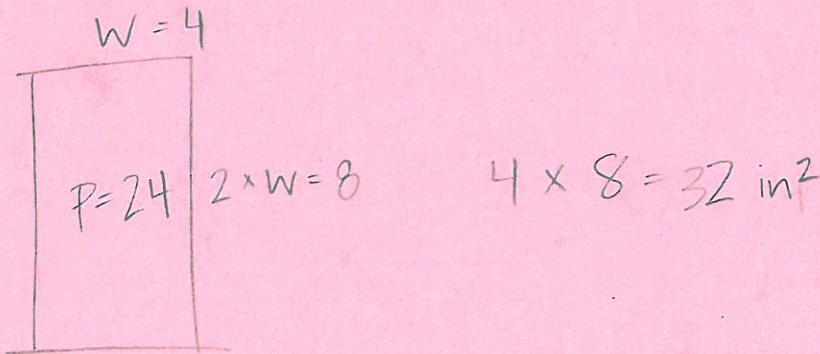
3. Brinn's rectangular kitchen has an area of 81 square feet. The kitchen is 9 times as many square feet as Brinn's pantry. If the rectangular pantry is 3 feet wide, what is the length of the pantry?

$$\frac{9}{\text{PANTRY}} \times 9 = 81 \text{ sq}$$



length = 3 ft
of
pantry

4. The length of Marshall's rectangular poster is 2 times its width. If the perimeter is 24 inches, what is the area of the poster?

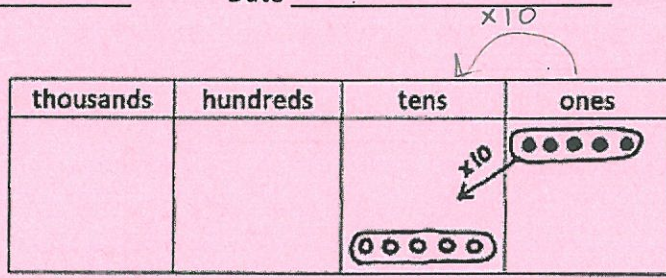


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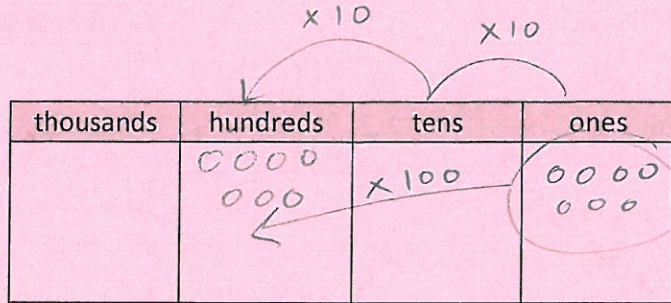
Example:

$5 \times 10 = \underline{50}$
 $5 \text{ ones} \times 10 = \underline{5 \text{ tens}}$

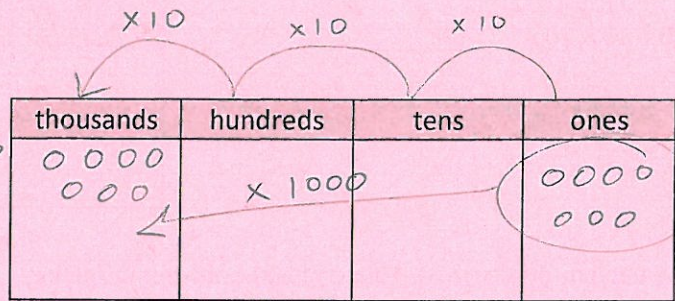


Draw place value disks and arrows as shown to represent each product.

1. $7 \times 100 = \underline{700}$
 $7 \times 10 \times 10 = \underline{700}$
 $7 \text{ ones} \times 100 = \underline{7 \text{ hundreds}}$



2. $7 \times 1,000 = \underline{7,000}$
 $7 \times 10 \times 10 \times 10 = \underline{7,000}$
 $7 \text{ ones} \times 1,000 = \underline{7 \text{ thousands}}$



3. Fill in the blanks in the following equations.

a. $8 \times 10 = \underline{80}$

b. $\underline{100} \times 8 = 800$

c. $8,000 = \underline{8} \times 1,000$

d. $10 \times 3 = \underline{30}$

e. $3 \times \underline{1,000} = 3,000$

f. $\underline{100} \times 3 = 300$

g. $1,000 \times 4 = \underline{4,000}$

h. $\underline{40} = 10 \times 4$

i. $400 = \underline{4} \times 100$

Draw place value disks and arrows to represent each product.

4. $15 \times 10 = \underline{150}$

$(1 \text{ ten } 5 \text{ ones}) \times 10 = \underline{15} \text{ tens}$

thousands	hundreds	tens	ones
	0	0 000 00	000 00

5. $17 \times 100 = \underline{1700}$

$17 \times 10 \times 10 = \underline{1700}$

$(1 \text{ ten } 7 \text{ ones}) \times 100 = \underline{17} \text{ hundreds}$

thousands	hundreds	tens	ones
0	$\times 100$ 0000 000	0 $\times 100$	0000 000

6. $36 \times 1,000 = \underline{36,000}$

$36 \times 10 \times 10 \times 10 = \underline{36,000}$

$(3 \text{ tens } 6 \text{ ones}) \times 1,000 = \underline{36} \text{ thousands}$

ten thousands	thousands	hundreds	tens	ones
000	000 000		000	000 000

Decompose each multiple of 10, 100, or 1000 before multiplying.

7. $2 \times 80 = 2 \times 8 \times \underline{10}$

$160 = 16 \times \underline{10}$

$= \underline{160}$

8. $2 \times 400 = 2 \times \underline{4} \times \underline{100}$

$= \underline{8} \times \underline{100}$

$= \underline{800}$

9. $5 \times 5,000 = \underline{5} \times \underline{5} \times \underline{1,000}$

$= \underline{25} \times \underline{1,000}$

$= \underline{25,000}$

10. $7 \times 6,000 = \underline{7} \times \underline{6} \times \underline{1,000}$

$= \underline{42} \times \underline{1,000}$

$= \underline{42,000}$

Name _____

Date _____

Draw place value disks to represent the value of the following expressions.

1. $5 \times 2 = 10$

5 times 2 ones is 10 ones.

thousands	hundreds	tens	ones
			○○ ○○ ○○ ○○ ○○

$$\begin{array}{r} 2 \\ \times 5 \\ \hline 10 \end{array}$$

2. $5 \times 20 = 100$

5 times 2 tens is 1 hundred.

thousands	hundreds	tens	ones
	○ ←	○○ ○○ ○○ ○○ ○○	

$$\begin{array}{r} 20 \\ \times 5 \\ \hline 100 \end{array}$$

3. $5 \times 200 = 1000$

5 times 2 hundreds is 1 thousand.

thousands	hundreds	tens	ones
○ ←	○○ ○○ ○○ ○○ ○○		

$$\begin{array}{r} 200 \\ \times 5 \\ \hline 1000 \end{array}$$

4. $5 \times 2,000 = 10,000$

5 times 2 thousand is 10 thousands.

thousands	hundreds	tens	ones
○○ ○○ ○○ ○○ ○○			

$$\begin{array}{r} 2,000 \\ \times 5 \\ \hline 10,000 \end{array}$$

5. Find the product.

a. 20×9 180	b. 6×70 420	c. 7×700 4900	d. 3×900 2700
e. 9×90 810	f. 40×7 280	g. 600×6 3600	h. $8 \times 6,000$ 48000
i. 5×70 350	j. 5×80 400	k. 5×200 1000	l. $6,000 \times 5$ 30000

6. At the school cafeteria, each student who ordered lunch gets 6 chicken nuggets. The cafeteria staff prepares enough for 300 kids. How many chicken nuggets does the cafeteria staff prepare altogether?

$$6 \times 300 = 1800 \text{ chicken nuggets}$$

7. Jaelynn has 30 times as many stickers as her brother. Her brother has 8 stickers. How many stickers does Jaelynn have?

$$30 \times 8 = 240 \text{ stickers}$$

8. The flower shop has 40 times as many flowers in one cooler as Julia has in her bouquet. The cooler has 120 flowers. How many flowers are in Julia's bouquet?

$$40 \times \underline{\quad} = 120$$

3 flowers

Name _____

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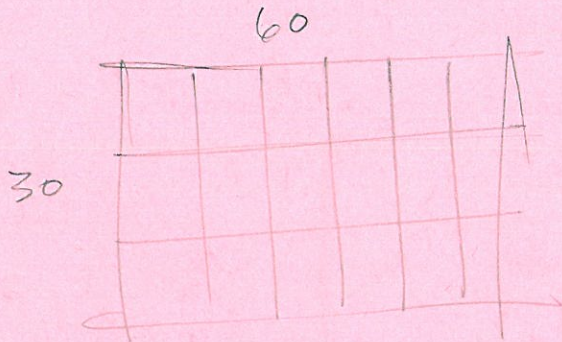
Represent the following problem by drawing disks in the place value chart.

1. To solve 30×60 , think:

$$\begin{aligned} & \overset{180}{(3 \text{ tens} \times 6) \times 10} = \underline{1800} \\ 30 \times (\overset{60}{6 \times 10}) &= \underline{1800} \\ 30 \times 60 &= \underline{1800} \end{aligned}$$

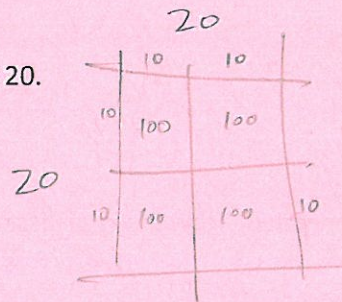
hundreds	tens	ones
18		

2. Draw an area model to represent 30×60 .



$3 \text{ tens} \times 6 \text{ tens} = \underline{18} \text{ hundreds}$

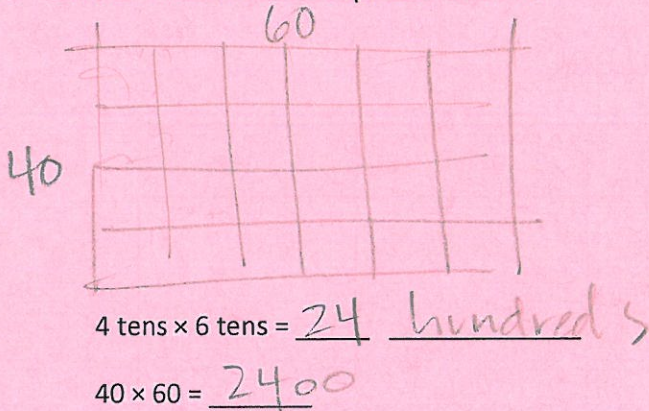
3. Draw an area model to represent 20×20 .



$2 \text{ tens} \times 2 \text{ tens} = \underline{4} \text{ hundreds}$

$20 \times 20 = \underline{400}$

4. Draw an area model to represent 40×60 .



Rewrite each equation in unit form and solve.

5. $50 \times 20 =$ 1000

5 tens \times 2 tens = 10 hundreds

6. $30 \times 50 =$

3 tens \times 5 tens = 15 hundreds

7. $60 \times 20 =$

6 tens \times 2 tens = 12 hundreds

8. $40 \times 70 =$

4 tens \times 7 tens = 28 hundreds

9. There are 60 seconds in a minute and 60 minutes in an hour. How many seconds are in one hour?

$60 \times 60 =$ 3600 seconds in an hour

10. To print a comic book, 50 pieces of paper are needed. How many pieces of paper are needed to print 40 comic books?

$50 \times 40 =$ 2000 pieces of paper

Name _____

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1. Represent the following expressions with disks, regrouping as necessary, writing a matching expression, and recording the partial products vertically.

a. 3×24

72

tens	ones
00	
00	
00	
0	

b. 3×42 126

hundreds	tens	ones

c. 4×34 136

hundreds	tens	ones

2. Represent the following expressions with disks, regrouping as necessary. To the right, record the partial products vertically.

a. 4×27

hundreds	tens	ones
	00	0000000
	00	0000000
	00	0000000
	00	0000000

$7 \times 4 = 28$
 $20 \times 4 = 80$

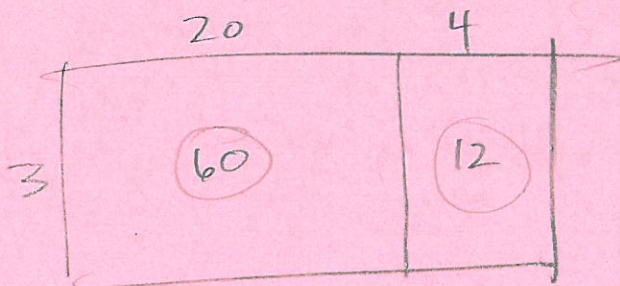
b. 5×42

hundreds	tens	ones
	0000	00
	0000	00
	0000	00
	0000	00
	0000	00

$5 \times 40 = 200$
 $5 \times 2 = 10$

3. Cindy says she found a shortcut for doing multiplication problems. When she multiplies 3×24 , she says, "3 x 4 is 12 ones, or 1 ten and 2 ones. Then, there's just 2 tens left in 24, so add it up, and you get 3 tens and 2 ones." Do you think Cindy's shortcut works? Explain your thinking in words and justify your response using a model or partial products.

Cindy forgot to do 3×20 in her shortcut



Name _____

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1. Represent the following expressions with disks, regrouping as necessary, writing a matching expression, and recording the partial products vertically as shown below.

a. 2×424

hundreds	tens	ones
● ● ● ●	● ●	● ● ● ●
0000	00	0000

$$\begin{array}{r}
 4^{\text{h}} \quad 2^{\text{t}} \quad 4^{\text{o}} \\
 \times \quad \quad \quad 2 \\
 \hline
 \quad \quad \quad 8 \\
 \quad \quad 40 \\
 + 800 \\
 \hline
 848
 \end{array}$$

$\rightarrow 2 \times 4$ ones
 $\rightarrow 2 \times 2$ tens
 $\rightarrow 2 \times 4$ hundreds

2×4 hundreds + 2×2 tens + 2×4 ones

b. 3×424

hundreds	tens	ones
0000	00	0000
0000	00	0000
0000	00	0000

$$\begin{array}{r}
 4^{\text{h}} \quad 2^{\text{t}} \quad 4^{\text{o}} \\
 \times \quad \quad \quad 3 \\
 \hline
 \quad \quad \quad 12 \\
 \quad \quad 60 \\
 + 1200 \\
 \hline
 1272
 \end{array}$$

c. $4 \times 1,424$

1000s	100s	10s	1s
0	0000	00	0000
0	0000	00	0000
0	0000	00	0000
0	0000	00	0000
0		00	0000

$$\begin{array}{r}
 1^{\text{th}} \quad 4^{\text{h}} \quad 2^{\text{t}} \quad 4^{\text{o}} \\
 \times \quad \quad \quad 4 \\
 \hline
 \quad \quad \quad 16 \\
 \quad \quad 80 \\
 \quad 1600 \\
 + 4000 \\
 \hline
 5696
 \end{array}$$

2. Represent the following expressions with disks, using either method shown in class, regrouping as necessary. To the right, record the partial products vertically.

a. 2×617

Partial products:

$$\begin{array}{r} 617 \\ \times 2 \\ \hline 14 \\ 20 \\ + 1200 \\ \hline 1234 \end{array}$$

b. 5×642

Partial products:

$$\begin{array}{r} 642 \\ \times 5 \\ \hline 10 \\ 200 \\ 3000 \\ \hline 3210 \end{array}$$

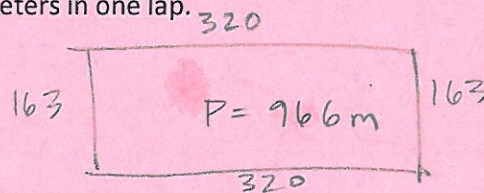
c. $3 \times 3,034$

Partial products:

$$\begin{array}{r} 3034 \\ \times 3 \\ \hline 12 \\ 9000 \\ \hline 9102 \end{array}$$

3. Every day, Penelope jogs three laps around the playground to keep in shape. The playground is rectangular with a width of 163 m and a length of 320 m.

a. Find the total amount of meters in one lap.



b. Determine how many meters Penelope jogs in three laps.

$$\begin{array}{r} 966 \\ \times 3 \\ \hline 18 \\ 180 \\ + 2700 \\ \hline 2898 \end{array}$$

Name _____

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1. Solve using each method.

Partial Products	Standard Algorithm
a. $\begin{array}{r} 46 \\ \times 2 \\ \hline 12 \\ + 80 \\ \hline 92 \end{array}$	$\begin{array}{r} 46 \\ \times 2 \\ \hline 92 \end{array}$

Partial Products	Standard Algorithm
b. $\begin{array}{r} 315 \\ \times 4 \\ \hline 20 \\ 40 \\ + 1200 \\ \hline 1260 \end{array}$	$\begin{array}{r} 315 \\ \times 4 \\ \hline 1260 \end{array}$

2. Solve using the standard algorithm.

a. $\begin{array}{r} 232 \\ \times 4 \\ \hline 928 \end{array}$	b. $\begin{array}{r} 2142 \\ \times 6 \\ \hline 852 \end{array}$	c. $\begin{array}{r} 314 \\ \times 7 \\ \hline 2198 \end{array}$
d. $\begin{array}{r} 440 \\ \times 3 \\ \hline 1320 \end{array}$	e. $\begin{array}{r} 507 \\ \times 8 \\ \hline 4056 \end{array}$	f. $\begin{array}{r} 734 \\ \times 9 \\ \hline 3456 \end{array}$

3. What is the product of 8 and 54?

4. Isabel earned 350 points while she was playing Blasting Robot. Isabel's mom earned 3 times as many points as Isabel. How many points did Isabel's mom earn?

$$\begin{array}{r} 350 \\ \times \quad 3 \\ \hline 1050 \text{ points} \end{array}$$

5. To get enough money to go to on a field trip, every student in a club has to raise \$53 by selling chocolate bars. There are 9 students in the club. How much money does the club need to raise to go on the field trip?

$$\begin{array}{r} \overset{2}{5}3 \\ \times \quad 9 \\ \hline \$477 \end{array}$$

6. Mr. Meyers wants to order 4 tablets for his classroom. Each tablet costs \$329. How much will all four tablets cost?

$$\begin{array}{r} \overset{1}{3} \overset{3}{2}9 \\ \times \quad 4 \\ \hline \$1316 \end{array}$$

7. Amaya read 64 pages last week. Amaya's older brother, Rogelio, read twice as many pages in the same amount of time. Their big sister, Elianna, is in high school and read 4 times as many pages as Rogelio did. How many pages did Elianna read last week?

$$\begin{array}{r} 64 \text{ (A)} \\ \times \quad 2 \\ \hline 128 \text{ (B)} \\ \times \quad 4 \\ \hline 512 \text{ (C)} \end{array}$$

$$\begin{array}{r} 2 \times 4 = 8 \\ \overset{3}{6}4 \\ \times \quad 8 \\ \hline \end{array}$$

OR

Elianna read 512 pages

Name _____

Date _____

1. Solve using the standard algorithm.

a. $3 \times 41 = 123$	b. $9 \times 41 = 369$
c. $7 \times 143 = 1001$	d. $7 \times 286 = 2002$
e. $4 \times 2,048 = 8192$	f. $4 \times 4,096 = 16384$
g. $8 \times 4,096 = 32768$	h. $4 \times 8,192 = 32768$

NOTICE HOW THESE ANSWERS ARE RELATED!

2. Robert's family brings six gallons of water for the players on the football team. If one gallon of water contains 128 fluid ounces, how many fluid ounces are in six gallons?

$$128 \times 6 = 768 \text{ ounces}$$

3. It takes 687 Earth days for the planet Mars to revolve around the Sun once. How many Earth days does it take Mars to revolve around the Sun four times?

$$687 \times 4 = 2748 \text{ days}$$

4. Tammy buys a 4-gigabyte memory card for her camera. Dijonea buys a memory card with twice as much storage as Tammy's. One gigabyte is 1,024 megabytes. How many megabytes of storage does Dijonea have on her memory card?

$$\begin{array}{l} 4 \times 2 = 8 \\ \uparrow \quad \uparrow \\ \text{4's} \quad \text{double} \\ \text{memory} \quad \text{it} \end{array}$$
$$\begin{array}{r} 1024 \\ \times \quad 8 \\ \hline 8192 \text{ megabytes} \end{array}$$

Name _____

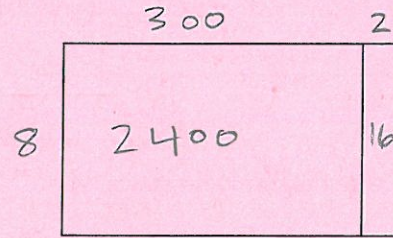
Date _____

1. Solve the following expressions using the standard algorithm, the partial products method, and the area model.

a. 302×8

$$\begin{array}{r} \text{PP: } \overset{00}{302} \\ \times \quad 8 \\ \hline 16 \\ + 2400 \\ \hline 2416 \end{array}$$

$$\begin{array}{r} \text{S: } \overset{1}{302} \\ \times \quad 8 \\ \hline 2416 \end{array}$$



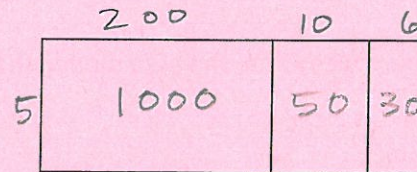
$$8(300 + 2)$$

$$(8 \times \underline{300}) + (8 \times \underline{2})$$

b. 216×5

$$\begin{array}{r} \text{PP: } \overset{00}{216} \\ \times \quad 5 \\ \hline 30 \\ 50 \\ + 1000 \\ \hline 1080 \end{array}$$

$$\begin{array}{r} \text{S: } \overset{3}{216} \\ \times \quad 5 \\ \hline 1080 \end{array}$$



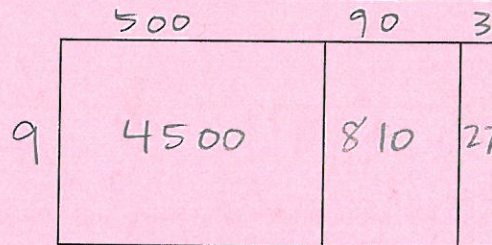
$$5(\underline{200} + \underline{10} + \underline{6})$$

$$(\underline{5} \times \underline{200}) + (\underline{5} \times \underline{10}) + (\underline{5} \times \underline{6})$$

c. 593×9

$$\begin{array}{r} \text{PP: } \overset{00}{593} \\ \times \quad 9 \\ \hline 27 \\ 810 \\ + 4500 \\ \hline 5337 \end{array}$$

$$\begin{array}{r} \text{S: } \overset{82}{593} \\ \times \quad 9 \\ \hline 5337 \end{array}$$



$$9(\underline{500} + \underline{90} + \underline{3})$$

$$(\underline{9} \times \underline{500}) + (\underline{9} \times \underline{90}) + (\underline{9} \times \underline{3})$$

2. Solve using the partial products method.

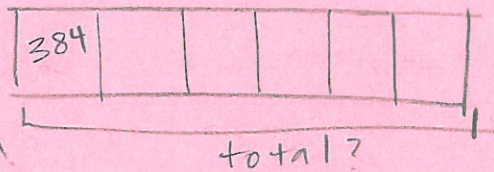
On Monday, 475 people visited the museum. On Saturday, there were 4 times as many visitors as there were on Monday. How many people visited the museum on Saturday?

1300 people

$$\begin{array}{r} 475 \\ \times \quad 4 \\ \hline 120 \\ 280 \\ +1600 \\ \hline 1300 \end{array}$$

3. Model with a tape diagram and solve.

6 times as much as 384



2304

Choice!

Solve using the standard algorithm, the area model, the distributive property, or the partial products method.

4. $6,253 \times 3$ 18759

5. 7 times as many as 3,073 21511

6. A cafeteria makes 2,516 pounds of white rice and 608 pounds of brown rice every month. After 6 months, how many pounds of rice does the cafeteria make?

18744 pounds

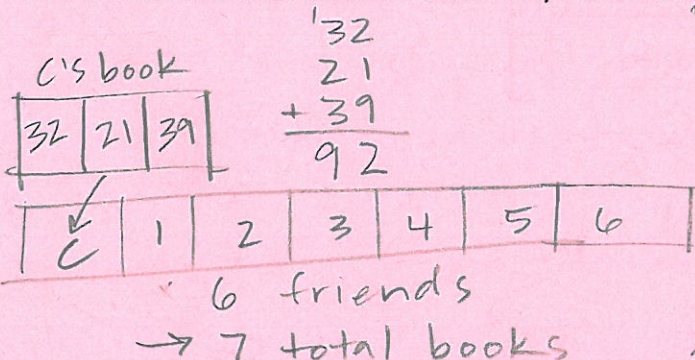
Read Draw Write

Name _____

Date _____

Use the RDW process to solve the following problems.

1. The table shows the number of stickers of various types in Chrissy's new sticker book. Chrissy's six friends each own the same sticker book. How many stickers do Chrissy and her six friends have altogether?



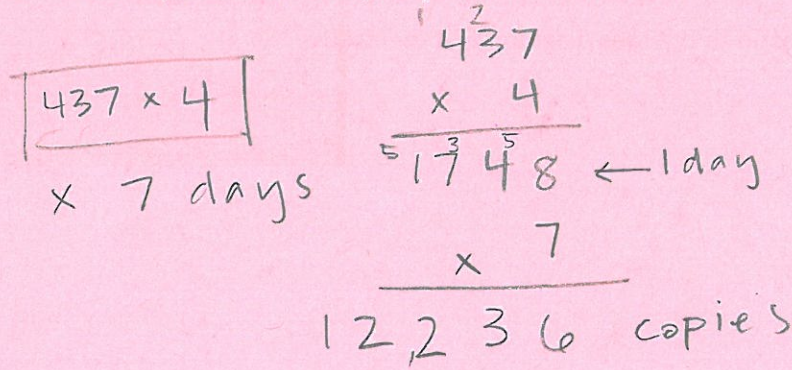
Type of Sticker	Number of Stickers
flowers	32
smiley faces	21
hearts	39

$$\begin{array}{r} 32 \\ 21 \\ + 39 \\ \hline 92 \end{array}$$

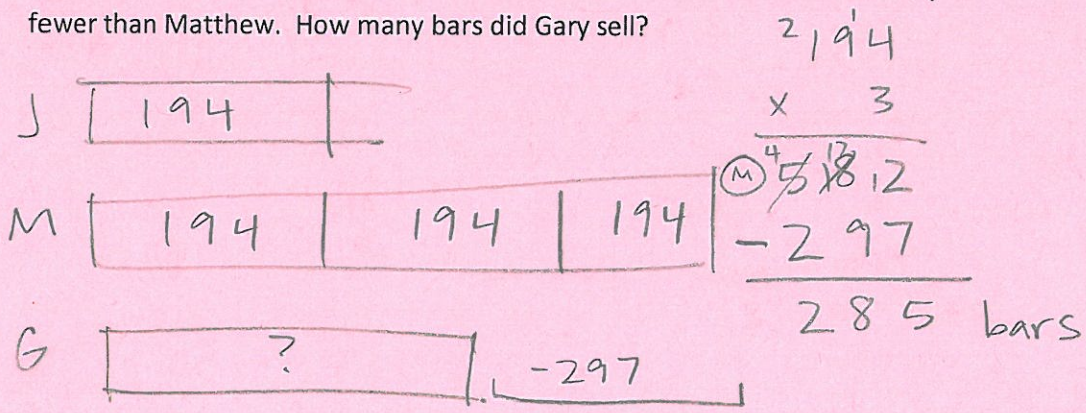
$$\begin{array}{r} 92 \\ \times 7 \\ \hline 644 \end{array}$$

644 stickers

2. The small copier makes 437 copies each day. The large copier makes 4 times as many copies each day. How many copies does the large copier make each week?

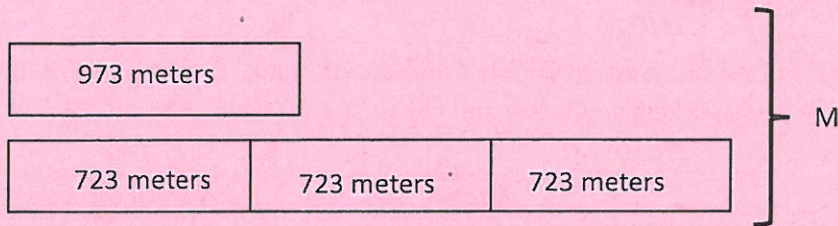


3. Jared sold 194 Boy Scout chocolate bars. Matthew sold three times as many as Jared. Gary sold 297 fewer than Matthew. How many bars did Gary sell?



4.

a. Write an equation that would allow someone to find the value of M.



$$(723 \times 3) + 973 =$$

b. Write your own word problem to correspond to the tape diagram, and then solve.

Word problems vary 😊

$$\begin{array}{r}
 723 \\
 \times \quad 3 \\
 \hline
 2169 \\
 + 973 \\
 \hline
 3142 \text{ label}
 \end{array}$$

3. All 3,000 seats in a theater are being replaced. So far, 5 sections of 136 seats and a sixth section containing 348 seats have been replaced. How many more seats do they still need to replace?

3000

$$\begin{array}{r}
 136 \\
 \times 5 \\
 \hline
 680 \\
 + 348 \\
 \hline
 1028
 \end{array}$$

$$\begin{array}{r}
 3000 \\
 - 1028 \\
 \hline
 1972 \text{ seats}
 \end{array}$$

4. Computer Depot sold 762 reams of paper. Paper Palace sold 3 times as much paper as Computer Depot and 143 reams more than Office Supply Central. How many reams of paper were sold by all three stores combined?

total ?

$$\begin{array}{r}
 762 \\
 \times 3 \\
 \hline
 2286 \leftarrow \text{PP} \\
 - 143 \\
 \hline
 2143 \leftarrow \text{OSC}
 \end{array}$$

$$\begin{array}{r}
 762 \\
 + 2286 \\
 + 2143 \\
 \hline
 5191 \text{ reams of paper}
 \end{array}$$

Name _____

Date _____

Solve using the RDW process.

1. 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?

Diagram showing 1 jacket (JJ) and 4 pairs of jeans (J).

$$\begin{array}{r} 89 \\ \times 6 \\ \hline 534 \end{array}$$

Total cost: \$534

2. Sarah bought a shirt on sale for \$35. The original price of the shirt was 3 times that amount. Sarah also bought a pair of shoes on sale for \$28. The original price of the shoes was 5 times that amount. Together, how much money did the shirt and shoes cost before they went on sale?

SHIRT: 35, 35, 35

SHOES: 28, 28, 28, 28, 28

$$\begin{array}{r} 35 \\ \times 3 \\ \hline 105 \end{array}$$

$$\begin{array}{r} 28 \\ \times 5 \\ \hline 140 \end{array}$$

$$\begin{array}{r} 140 \\ + 105 \\ \hline 245 \end{array}$$

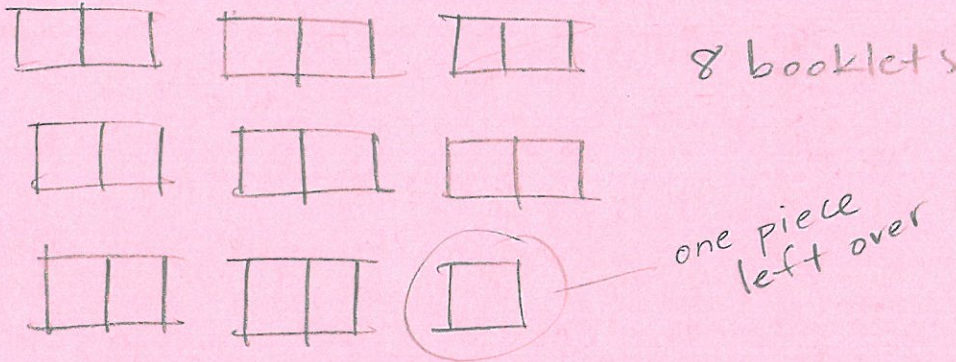
Total cost: \$245

Name _____

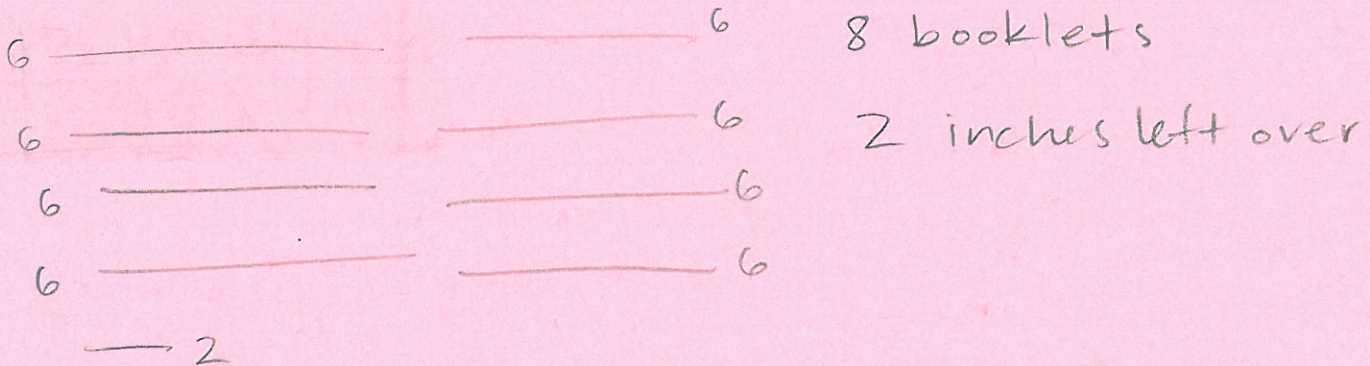
Date _____

Use the RDW process to solve the following problems.

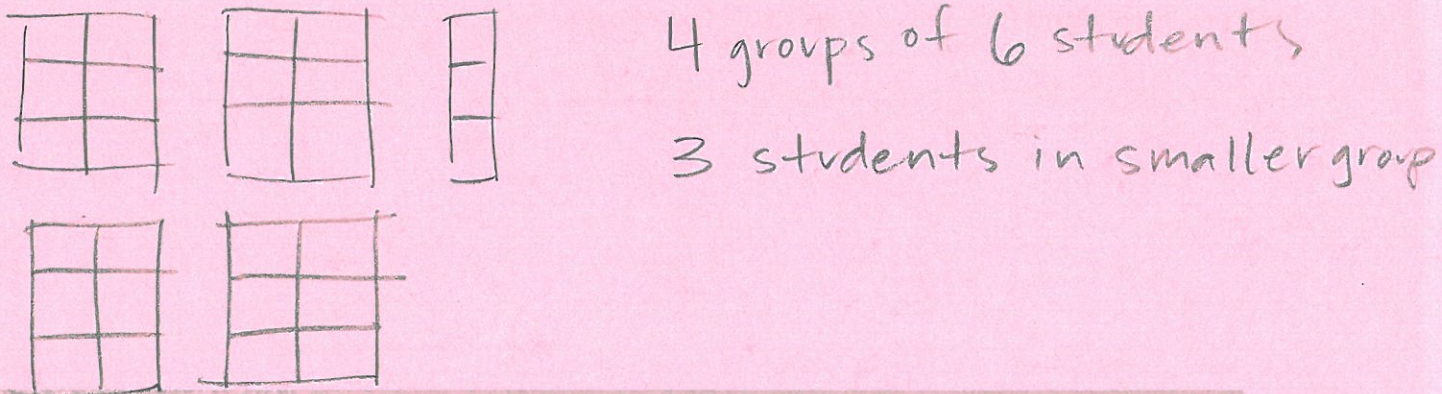
1. Linda makes booklets using 2 sheets of paper. She has 17 sheets of paper. How many of these booklets can she make? Will she have any extra paper? How many sheets?



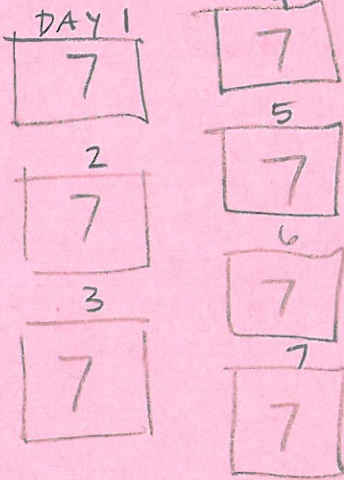
2. Linda uses thread to sew the booklets together. She cuts 6 inches of thread for each booklet. How many booklets can she stitch with 50 inches of thread? Will she have any unused thread after stitching up the booklets? If so, how much?



3. Ms. Rochelle wants to put her 29 students into groups of 6. How many groups of 6 can she make? If she puts any remaining students in a smaller group, how many students will be in that group?




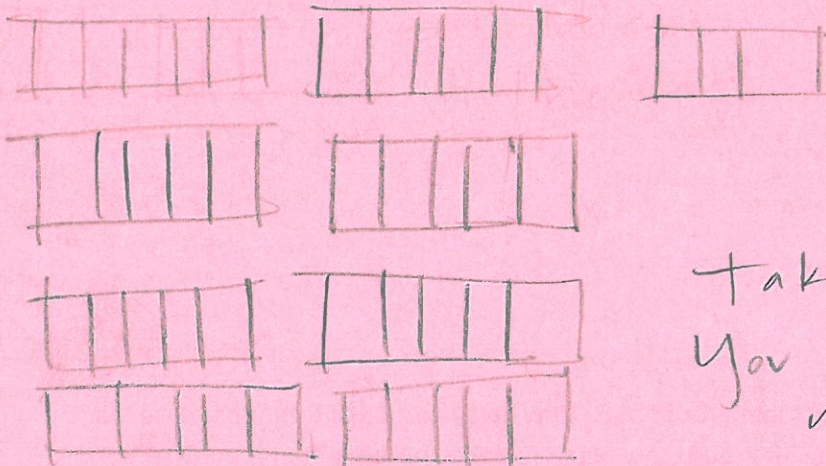
4. A trainer gives his horse, Caballo, 7 gallons of water every day from a 57-gallon container. How many days will Caballo receive his full portion of water from the container? On which number day will the trainer need to refill the container of water?



8 days of full water
refill on day 9

day 9: 1 gallon left

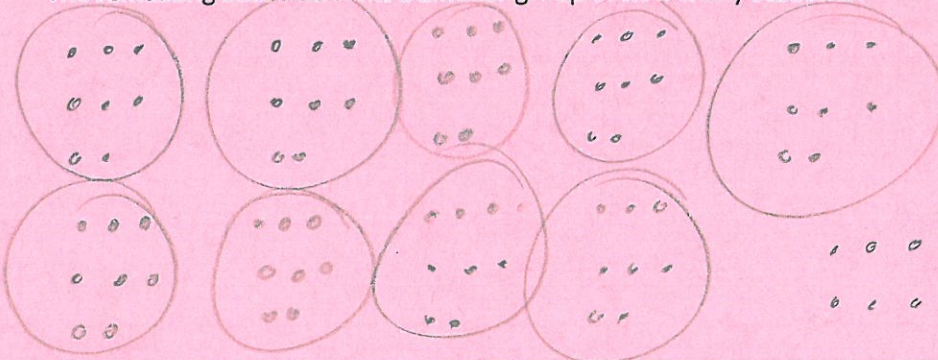
5. Meliza has 43 toy soldiers. She lines them up in rows of 5 to fight imaginary  zombies. How many of these rows can she make? After making as many rows of 5 as she can, she puts the remaining soldiers in the last row. How many soldiers are in that row?



3 soldiers
in the last
row.

Take that, zombies!
You won't eat
my brain.

6. Seventy-eight students are separated into groups of 8 for a field trip. How many groups are there? The remaining students form a smaller group of how many students?



9 groups
6 left in
smaller group

Name _____

Date _____

Show division using an array.

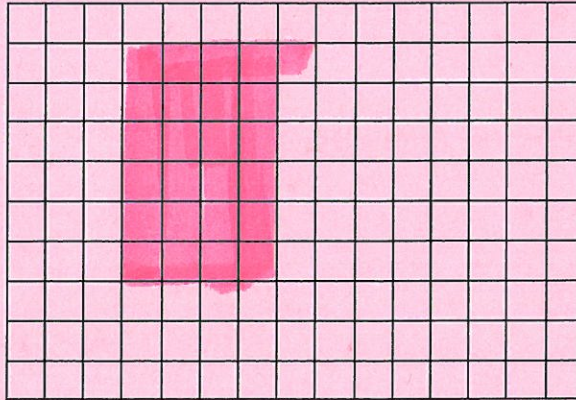
1. $24 \div 4$



Quotient = 6

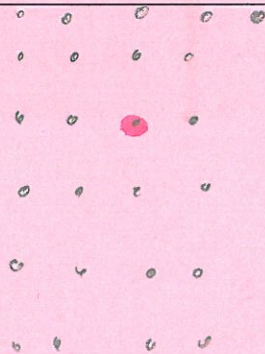
Remainder = 0

Show division using an area model.



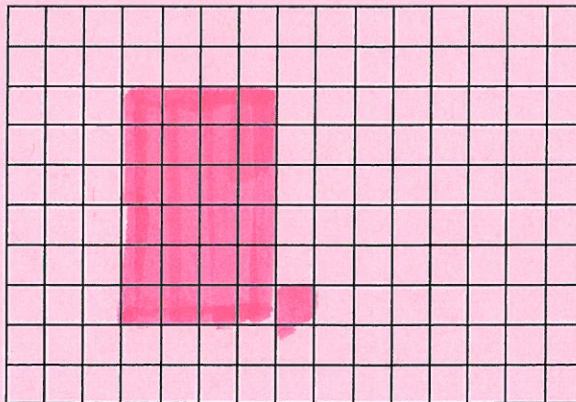
Can you show $24 \div 4$ with one rectangle? yes

2. $25 \div 4$



Quotient = 6

Remainder = 1



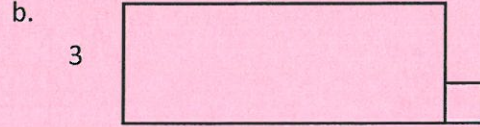
Can you show $25 \div 4$ with one rectangle? no
 Explain how you showed the remainder:

Solve using an array and area model. The first one is done for you.

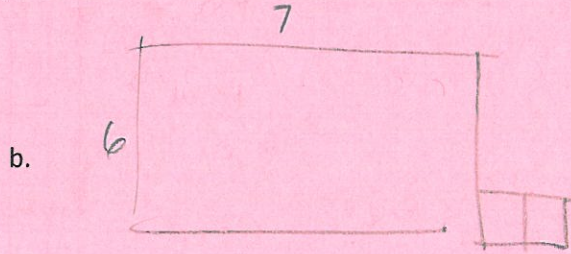
Example: $25 \div 3$



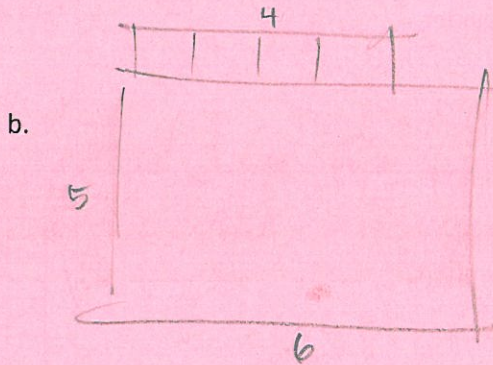
Quotient = 8 Remainder = 1



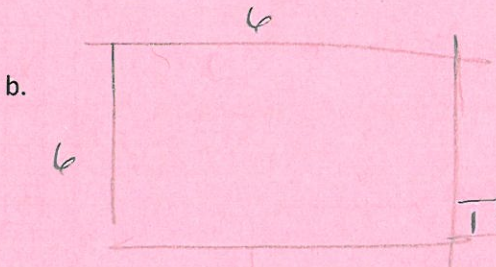
3. $44 \div 7$



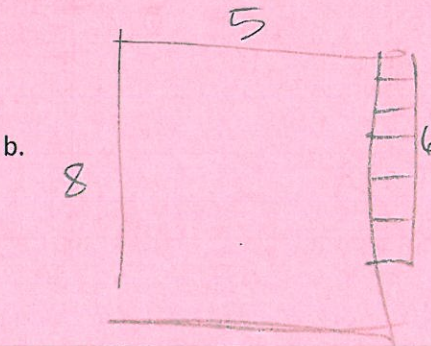
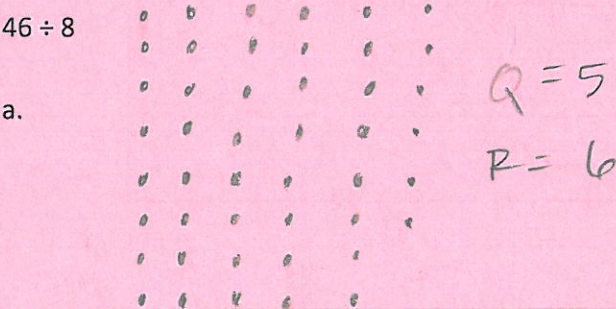
4. $34 \div 6$



5. $37 \div 6$



6. $46 \div 8$

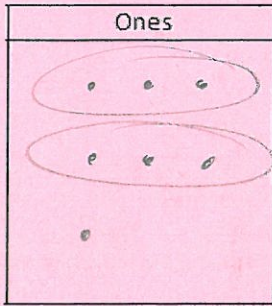


Name _____

Date _____

Show the division using disks. Relate your work on the place value chart to long division. Check your quotient and remainder by using multiplication and addition.

1. $7 \div 3$



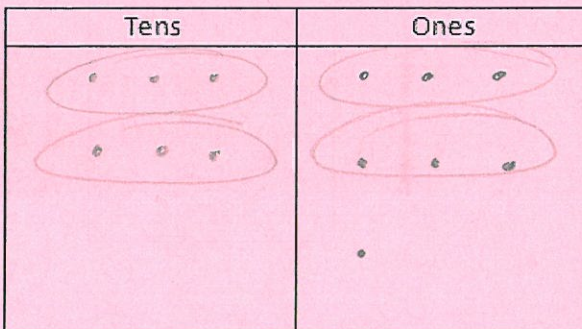
$$\begin{array}{r} 2 \\ 3 \overline{) 7} \\ \underline{-6} \\ 1 \end{array}$$

quotient = 2

remainder = 1

Check Your Work	
2	
$\times 3$	
6	
$+ 1$	
<u>7</u>	

2. $67 \div 3$



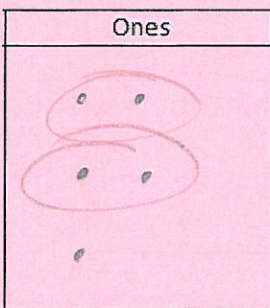
$$\begin{array}{r} 22 \\ 3 \overline{) 67} \\ \underline{-6} \\ 07 \\ \underline{-6} \\ 1 \end{array}$$

quotient = 22

remainder = 1

Check Your Work	
22	
$\times 3$	
66	
$+ 1$	
<u>67</u>	

3. $5 \div 2$



$$\begin{array}{r} 2 \\ 2 \overline{) 5} \\ \underline{-4} \\ 1 \end{array}$$

quotient = 2

remainder = 1

Check Your Work	
2	
$\times 2$	
4	
$+ 1$	
<u>5</u>	

4. $85 \div 2$

Tens	Ones

$$\begin{array}{r} 42 \\ 2 \overline{)85} \\ \underline{-8} \\ 05 \\ \underline{-4} \\ 1 \end{array}$$

quotient = 42

remainder = 1

Check Your Work

$$\begin{array}{r} 42 \\ \times 2 \\ \hline 84 \\ + 1 \\ \hline 85 \end{array}$$

5. $5 \div 4$

Ones

$$\begin{array}{r} 1 \\ 4 \overline{)5} \\ \underline{-4} \\ 1 \end{array}$$

quotient = 1

remainder = 1

Check Your Work

$$\begin{array}{r} 4 \\ \times 1 \\ \hline 4 \\ + 1 \\ \hline 5 \end{array}$$

6. $85 \div 4$

Tens	Ones

$$\begin{array}{r} 21 \\ 4 \overline{)85} \\ \underline{-8} \\ 05 \\ \underline{-4} \\ 1 \end{array}$$

quotient = 21

remainder = 1

Check Your Work

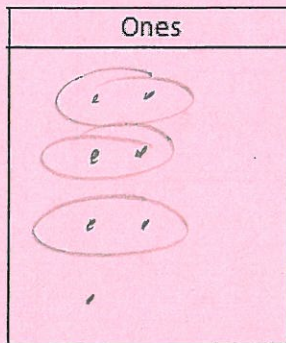
$$\begin{array}{r} 21 \\ \times 4 \\ \hline 84 \\ + 1 \\ \hline 85 \end{array}$$

Name _____

Date _____

Show the division using disks. Relate your model to long division. Check your quotient and remainder by using multiplication and addition.

1. $7 \div 2$



$$\begin{array}{r} 3 \\ 2 \overline{) 7} \\ \underline{-6} \\ 1 \end{array}$$

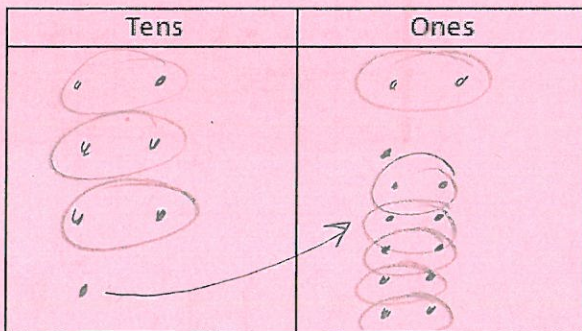
quotient = 3

remainder = 1

Check Your Work

$$\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \\ + 1 \\ \hline 7 \end{array}$$

2. $73 \div 2$



$$\begin{array}{r} 36 \\ 2 \overline{) 73} \\ \underline{-6} \\ 13 \\ \underline{-12} \\ 1 \end{array}$$

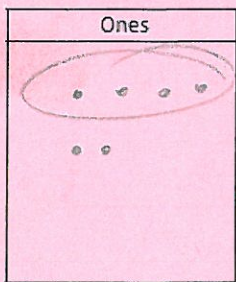
quotient = 36

remainder = 1

Check Your Work

$$\begin{array}{r} 36 \\ \times 2 \\ \hline 72 \\ + 1 \\ \hline 73 \end{array}$$

3. $6 \div 4$



$$\begin{array}{r} 1 \\ 4 \overline{) 6} \\ \underline{-4} \\ 2 \end{array}$$

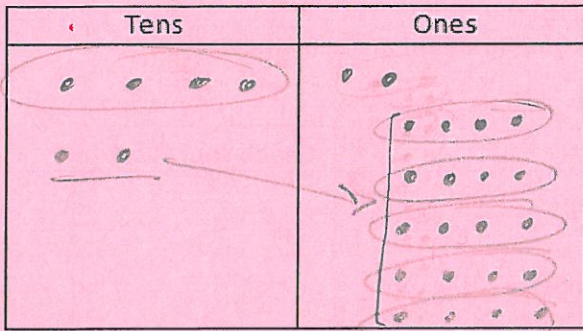
quotient = 1

remainder = 2

Check Your Work

$$\begin{array}{r} 1 \\ \times 4 \\ \hline 4 \\ + 2 \\ \hline 6 \end{array}$$

4. $62 \div 4$



$$\begin{array}{r} 15 \\ 4 \overline{) 62} \\ \underline{-4} \\ 22 \\ \underline{-20} \\ 2 \end{array}$$

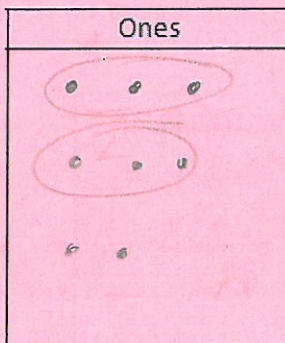
quotient = 15

remainder = 2

Check Your Work

$$\begin{array}{r} 15 \\ \times 4 \\ \hline 60 \\ + 2 \\ \hline 62 \end{array}$$

5. $8 \div 3$



$$\begin{array}{r} 2 \\ 3 \overline{) 8} \\ \underline{-6} \\ 2 \end{array}$$

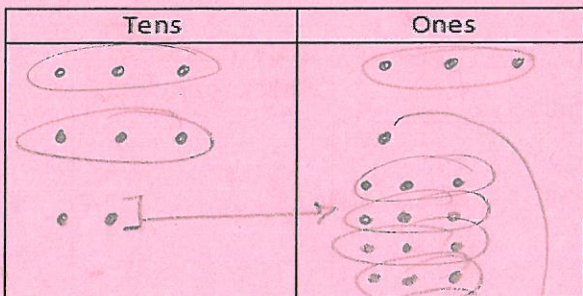
quotient = 2

remainder = 2

Check Your Work

$$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \\ + 2 \\ \hline 8 \end{array}$$

6. $84 \div 3$



$$\begin{array}{r} 28 \\ 3 \overline{) 84} \\ \underline{-6} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

quotient = 28

remainder = 0

Check Your Work

$$\begin{array}{r} 28 \\ \times 3 \\ \hline 84 \end{array}$$

Name _____

Date _____

Solve using the standard algorithm. Check your quotient and remainder by using multiplication and addition.

1. $84 \div 2$

$$\begin{array}{r} 42 \\ 2 \overline{)84} \\ \underline{-8} \\ 04 \\ \underline{-4} \\ 0 \end{array}$$

$$\begin{array}{r} 42 \\ \times 2 \\ \hline 84 \end{array}$$

2. $84 \div 4$

$$\begin{array}{r} 21 \\ 4 \overline{)84} \\ \underline{-8} \\ 04 \\ \underline{-4} \\ 0 \end{array}$$

$$\begin{array}{r} 21 \\ \times 4 \\ \hline 84 \end{array}$$

3. $48 \div 3$

$$\begin{array}{r} 16 \\ 3 \overline{)48} \\ \underline{-3} \\ 18 \\ \underline{-18} \\ 0 \end{array}$$

$$\begin{array}{r} 16 \\ \times 3 \\ \hline 48 \end{array}$$

4. $80 \div 5$

$$\begin{array}{r} 16 \\ 5 \overline{)80} \\ \underline{-5} \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

$$\begin{array}{r} 16 \\ \times 5 \\ \hline 80 \end{array}$$

5. $79 \div 5$

$$\begin{array}{r} 15 \\ 5 \overline{)79} \\ \underline{-5} \\ 29 \\ \underline{-25} \\ 4 \end{array}$$

$$\begin{array}{r} 15 \\ \times 5 \\ \hline 75 \\ + 4 \\ \hline 79 \end{array}$$

6. $91 \div 4$

$$\begin{array}{r} 22 \\ 4 \overline{)91} \\ \underline{-8} \\ 11 \\ \underline{-8} \\ 3 \end{array}$$

$$\begin{array}{r} 22 \\ \times 4 \\ \hline 88 \\ + 3 \\ \hline 91 \end{array}$$

7. $91 \div 6$

$$\begin{array}{r} 15 \\ 6 \overline{) 91} \\ \underline{-3} \\ 31 \\ \underline{-30} \\ 1 \end{array}$$

$$\begin{array}{r} 3 \overline{) 15} \\ \times 6 \\ \hline 90 \\ + 1 \\ \hline 91 \end{array}$$

8. $91 \div 7$

$$\begin{array}{r} 13 \\ 7 \overline{) 91} \\ \underline{-7} \\ 21 \\ \underline{-21} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 13} \\ \times 7 \\ \hline 91 \end{array}$$

9. $87 \div 3$

$$\begin{array}{r} 29 \\ 3 \overline{) 87} \\ \underline{-6} \\ 27 \\ \underline{-27} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 29} \\ \times 3 \\ \hline 87 \end{array}$$

10. $87 \div 6$

$$\begin{array}{r} 14 \\ 6 \overline{) 87} \\ \underline{-6} \\ 27 \\ \underline{-24} \\ 3 \end{array}$$

$$\begin{array}{r} 2 \overline{) 14} \\ \times 6 \\ \hline 84 \\ + 3 \\ \hline 87 \end{array}$$

11. $94 \div 8$

$$\begin{array}{r} 11 \\ 8 \overline{) 94} \\ \underline{-8} \\ 14 \\ \underline{-8} \\ 6 \end{array}$$

$$\begin{array}{r} 11 \\ \times 8 \\ \hline 88 \\ + 6 \\ \hline 94 \end{array}$$

12. $94 \div 6$

$$\begin{array}{r} 15 \\ 6 \overline{) 94} \\ \underline{-6} \\ 34 \\ \underline{-30} \\ 4 \end{array}$$

$$\begin{array}{r} 3 \overline{) 15} \\ \times 6 \\ \hline 90 \\ + 4 \\ \hline 94 \end{array}$$