Name _____

1

Mental Math!

a. Two adults and two children go to the movies. The tickets are $3.50 for adults and half price for children. What is the total cost?

b. What would the cost be if the prices were $7.00 for adults and half price for children?
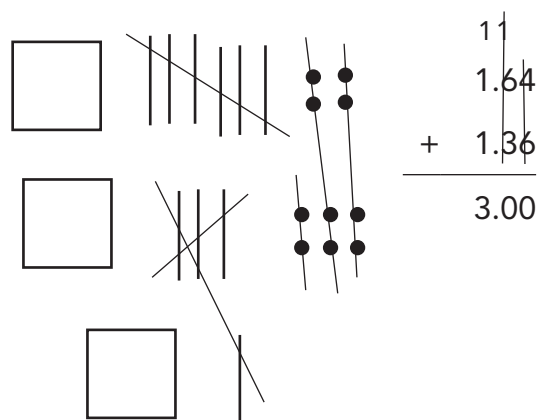
Name _____

Try This

Marty has 1.64 meters of blue string and 1.36 meters of red string.
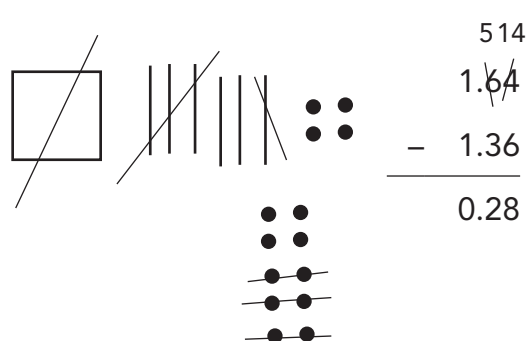How many meters of string does he have in all? How much longer is the blue string?

- Use Base Ten Blocks.

- Show how you model and solve the problem.

Think: Add 1.64 + 1.36

$$\begin{array}{r} \overset{1\;1}{1.64} \\ +\;\; 1.36 \\ \hline 3.00 \end{array}$$

Marty has 3.00 meters of string.

Think: Subtract 1.64 − 1.36

$$\begin{array}{r} \overset{5\;14}{1.\cancel{6}\cancel{4}} \\ -\;\; 1.36 \\ \hline 0.28 \end{array}$$

The blue string is 0.28 meter longer.

1. Gary was playing his favorite math video game. In the first round he scored
    2.12 points, and in the second round he scored 2.03 points.

    How many points did Gary score in all? _____

    How many more points did he score in the first round than he did in the

    second round? _____

Name _____

2. Jun has 3.19 liters of blue liquid and 2.03 liters of green liquid.

How many liters of liquid does Jun have in all? _____

Compared with the green liquid, how many more liters of blue liquid are there?

_____

3. A handyman has a 1.4-meter length of copper wire and a 2.35-meter length of steel wire.

How many meters is the wire combined? _____

How many meters less is the length of copper wire? _____

Add or subtract.

4.   8.25
    +   3.27
    _____

5.   12.93
    +   33.1
    _____

6.   0.77
    +   9.33
    _____

7.   15.23
    −   9.12
    _____

8.   5.44
    +   4.8
    _____

9.   13.3
    −   11.95
    _____

Name _____

**Use Base Ten Blocks to build the model. Use the model to complete
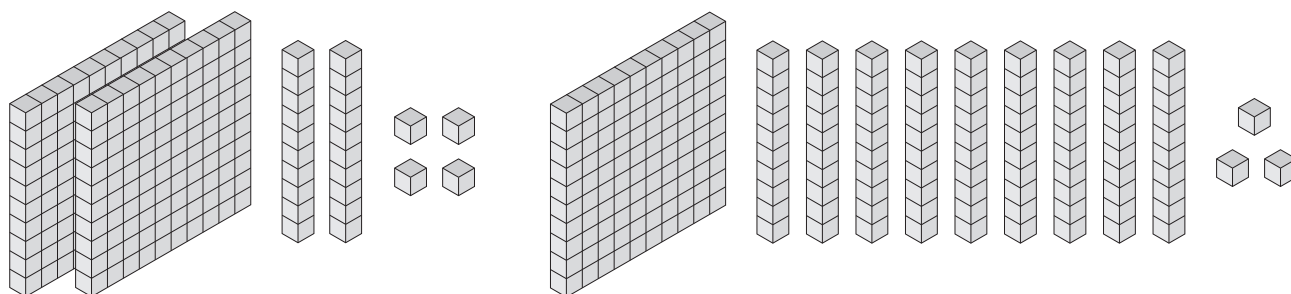the problem.**

1. Marcel has $1.57. Jordan has $1.44.

How much do Marcel and Jordan have combined?

_____
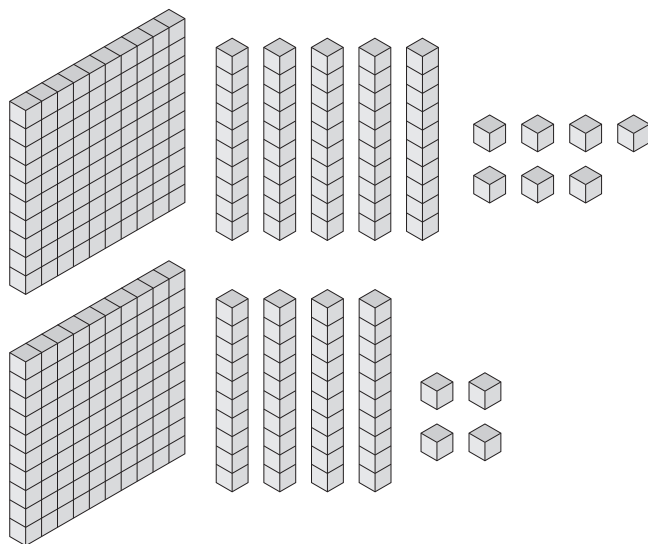
2. Maxine has 2.24 meters of ribbon. Mandy has 1.93 meters of ribbon.

How much more ribbon does Maxine have?

_____

Name _____

Use Base Ten Blocks. Sketch a model, and use it to complete the problem.

3. Cullen played two rounds of a math video game. He scored 4.06 points in Round 1 and 3.49 points in Round 2. How many points did he score in all?

_____

4. Darlene has a block of copper that weighs 3.9 kilograms. She has a block of aluminum that weighs 2.65 kilograms. What is the difference between the weights of the blocks?

_____

Add or subtract.

5.
$$\begin{array}{r} 7.25 \\ +\quad 2.27 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 1.9 \\ +\quad 10.15 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 5.57 \\ +\quad 3.5 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 9.23 \\ -\quad 7.15 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 16.34 \\ +\quad 9.6 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 22.91 \\ -\quad 7.44 \\ \hline \end{array}$$
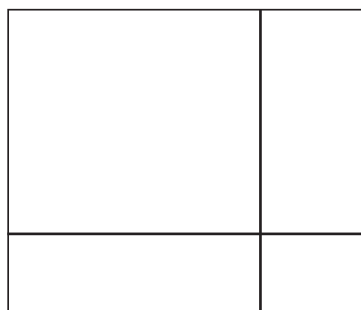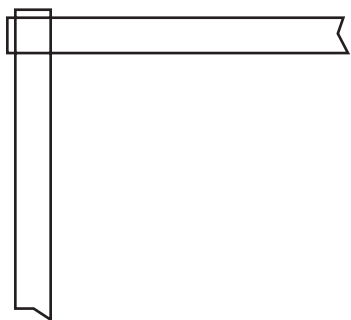
2

Suppose you know that 14 × 10 is 140.

a. Tell how you can figure out what 14 × 11 is.

b. Tell how you can figure out what 14 × 9 is.

Name _____

> **Try This**
> - Model problem 1 using Base Ten Blocks and a Factor Track. Sketch your model. Label the area model, and complete the equation.
> - In problems 2–3, sketch an area model and find the product.
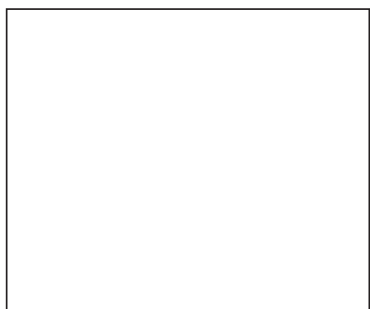> - In problems 4–7, find the product.

1. $11 \times 15 = (10 + 1) \times (10 + 5)$

= (____ × ____) + (____ × ____) + (____ × ____) + (____ × ____)

= ____ + ____ + ____ + ____ = ____

2.   25
     × 13

3.   125
     × 23

4.   26
     × 33

5.   134
     × 24

6.   225
     × 32

7.   316
     × 22

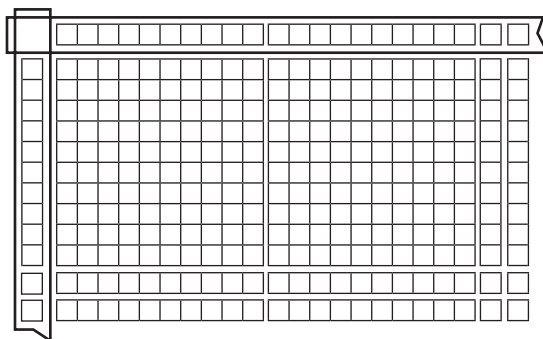**Use a Factor Track and Base Ten Blocks to build the model. Complete the number sentence.**

1. $11 \times 13 = (10 + 1) \times (10 + 3)$
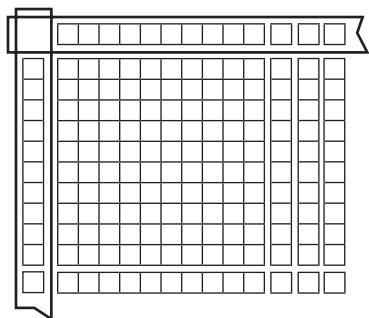
$= (10 \times 10) + (1 \times 10) + (10 \times 3) + (1 \times 3)$

$= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

2. $12 \times 22 = (10 + \underline{\hspace{1cm}}) \times (20 + \underline{\hspace{1cm}})$
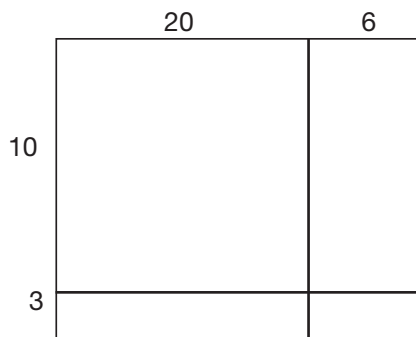
$= (10 \times 20) + (2 \times 20)$

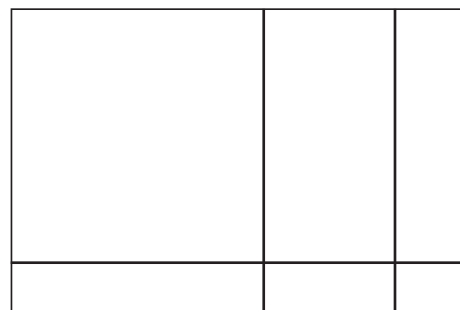$+ (\underline{\hspace{1cm}} \times 2) + (\underline{\hspace{1cm}} \times 2)$

$= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Complete the area model for the problem. Find the product.

3.
$$\begin{array}{r} 26 \\ \times\ 13 \\ \end{array}$$

	20	6
10		
3		

4.
$$\begin{array}{r} 144 \\ \times\ 24 \\ \end{array}$$

Find the product.

5.
$$\begin{array}{r} 46 \\ \times\ 34 \\ \end{array}$$

6.
$$\begin{array}{r} 127 \\ \times\ 14 \\ \end{array}$$

7.
$$\begin{array}{r} 225 \\ \times\ 31 \\ \end{array}$$

8.
$$\begin{array}{r} 333 \\ \times\ 26 \\ \end{array}$$

3

Mental Math!

1. Which is smallest?

    a. 1,639 ÷ 27   **b.** 1,600 ÷ 27   **c.** 1,550 ÷ 27

2. Which is biggest?

    a. 400 ÷ 23   **b.** 405 ÷ 23   **c.** 397 ÷ 23

3. Which is biggest?

    a. 400 ÷ 24   **b.** 400 ÷ 25   **c.** 400 ÷ 29

Name _____

Try This

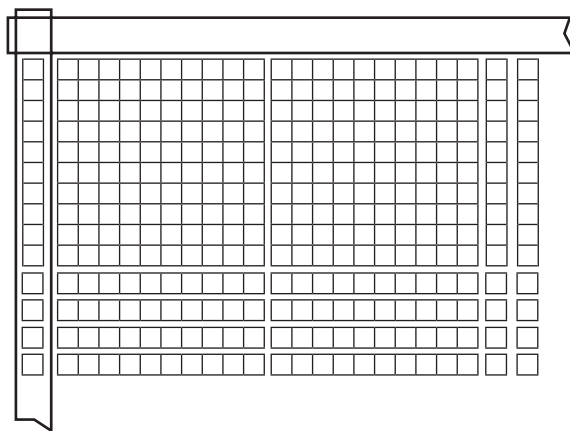There are 14 days in a fortnight. How many fortnights make 308 days?

- Use a Factor Track and Base Ten Blocks to model the problem.
- Sketch your model.
- Use your model to find the answer.

Think: Find 308 ÷ 14.

14 is a rod and 4 units.

308 is 3 flats, 8 units.

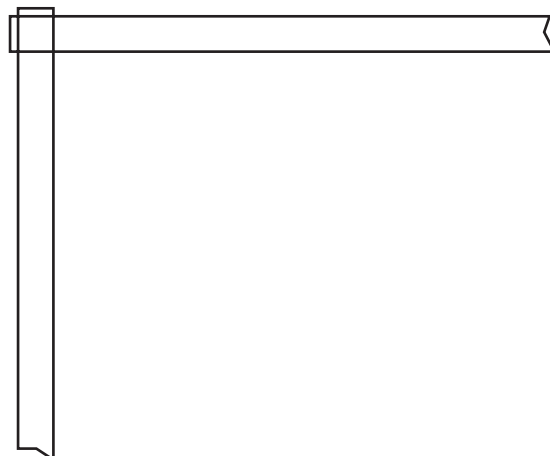You need to trade 1 flat for 10 rods to make the rectangle.

The missing side is 2 rods and 2 units, or 22.
308 days are 22 fortnights.

1. 276 ÷ 12 = _____

2. 336 ÷ 21 = _____
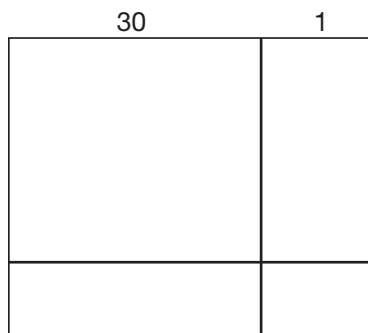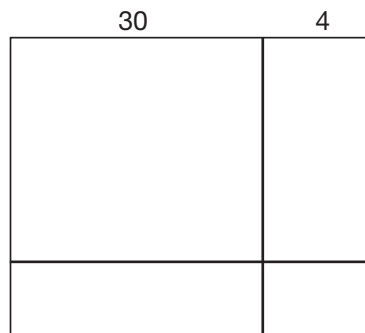
Sketch an area model to solve the problem. Start by modeling the problem with Base Ten Blocks if it helps. You can build a rectangle without the Factor Track.

3. 558 ÷ 31 = _____

30	1

4. 952 ÷ 34 = _____

30	4

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Name _____

Divide. Show your work.

5. 1,632 ÷ 32 = _____

6. 1,386 ÷ 42 = _____

7. 4,431 ÷ 21 = _____

8. 3,550 ÷ 25 = _____

Name _____

Use a Factor Track and Base Ten Blocks to build the model. Use the model to solve the problem.

1. There are 12 in a dozen. How many dozen do 288 make? _____
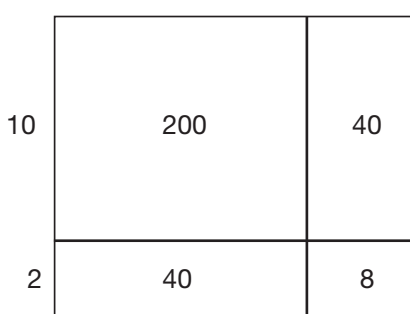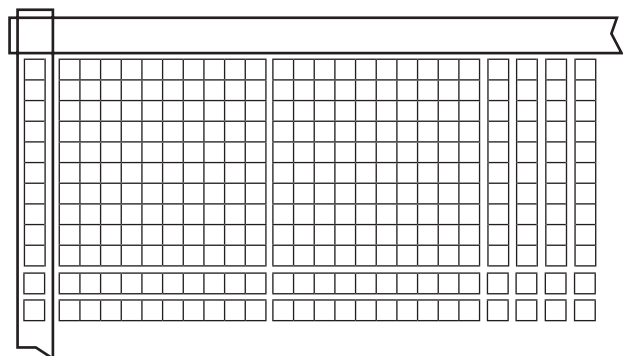
10	200	40
2	40	8

$$12\overline{)288}$$
$$\underline{240}$$
$$48$$
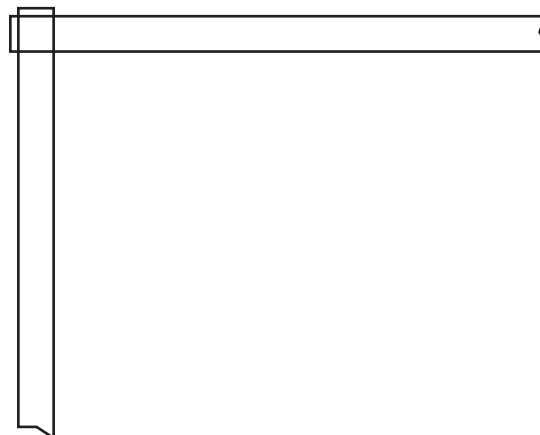$$\underline{48}$$
$$0$$

Use a Factor Track and Base Ten Blocks to model the problem. Sketch your model and use it to solve the problem.

2. 299 ÷ 13 = _____

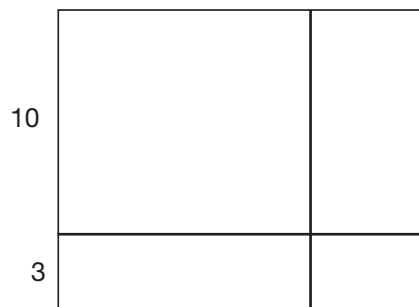**3.** 315 ÷ 21 = _____

Sketch an area model to solve the problem. Start by modeling the problem with Base Ten Blocks if it helps. You can build a rectangle without the Factor Track.

4. 455 ÷ 13 = _____

10		
3		

5. 837 ÷ 27 = _____

20		
7		
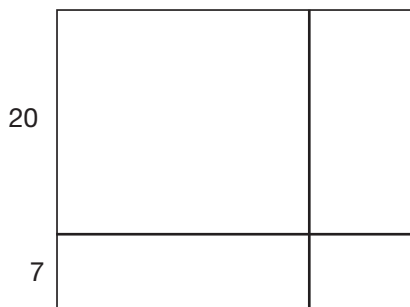
Name _____

Divide. Show your work.

6. 1,749 ÷ 33 = _____

7. 2,091 ÷ 51 = _____

8. 3,920 ÷ 35 = _____

9. 5,352 ÷ 24 = _____

Name _____

4

List 3 numbers between

    a. 90 and 97.

    b. 4.1 and 4.7.

    c. 3.2 and 3.3.

    d. one-fourth and one-half.

Name _____

Try This

Gretchen had 0.2 pounds of marbles. She gave 0.1 of the marbles to her friend Emma. How many pounds of marbles did she give Emma?

■ Use Base Ten Blocks to show one factor vertically and one factor horizontally.

■ Shade the grid to represent your model.

■ Use your model and drawing to find the answer.
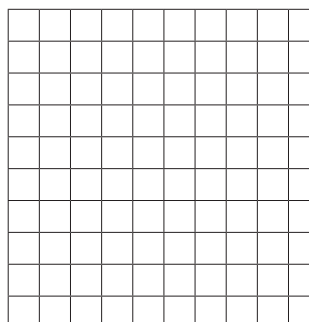
■ Write an equation to express the answer.
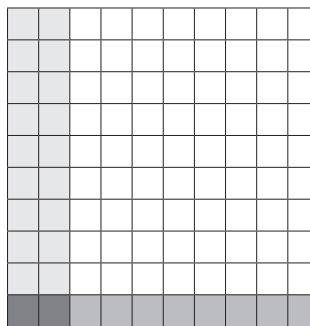
$0.2 \times 0.1 = 0.02$ pound

1. Jarrod started with 0.7 of a wheelbarrow of soil. He put 0.5 of the soil into the garden. How much of the wheelbarrow of soil did he put in the garden?

_____
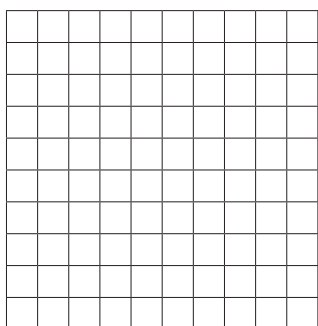
2. Harish had 0.4 of a bucket of paint. He gave 0.9 of the paint to his friend Aiko. How much of the bucket did he give to Aiko?

_____

3. Abby had a pitcher with 0.5 of a liter of iced tea. If Abby drank 0.20 of the iced tea, how much of a liter did she drink?

_____
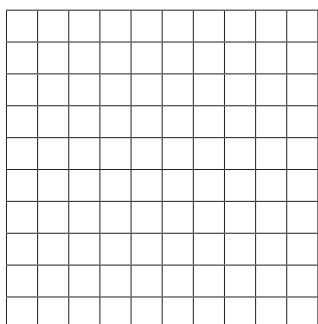
4. Coach Paul brought 0.8 of a gallon of water for his team. His team drank 0.6 of the water. How much of a gallon of water did the team drink?

_____
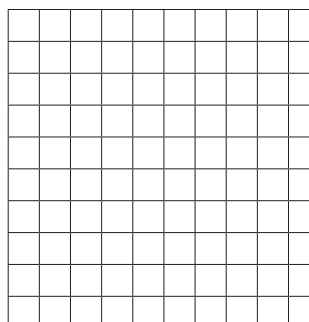
continued on the next page

Name _____

Answer the question.

5. Review problems 1–4. Compare your equations with the following equations.

$7 \times 5 = 35$

$4 \times 9 = 36$

$5 \times 2 = 10$

$8 \times 6 = 48$

Describe your findings.

_____

_____

_____

_____

Use your findings in problem 5 to solve the problem.

6. Liz is making an art project that calls for 0.8 meter of ribbon. The ribbon costs $0.85 a meter. How much will Liz have to pay for the amount of ribbon she needs?
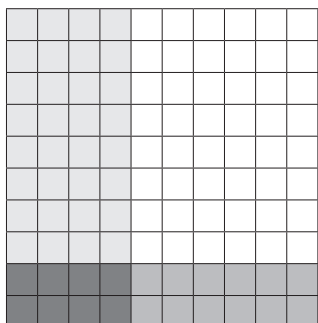
_____

7. Carlos had a 0.25 kg bag of peanuts. He and his two brothers ate 0.4 of the bag. How much of a kilogram of peanuts did they eat?
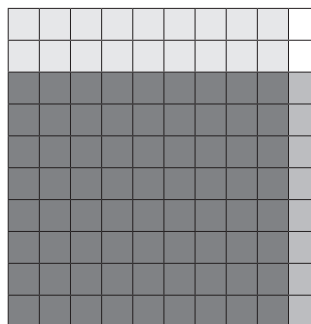
_____

Use Base Ten Blocks to build the area model. Write an equation to show the answer to the problem.

1. Santiago had 0.4 of a container of paper clips. He used 0.2 of the paper clips. How much of the container of paper clips did he use?

_____

2. Jackie bought 0.9 of a meter of yellow ribbon. She used 0.8 of the ribbon for an art project. How much of a meter did she use?

_____

Shade the grid to sketch an area model for the problem. Write an equation to show the answer.

3. Ayden had 0.2 pound of grapes. He ate 0.8 of the grapes. How much of a pound of grapes did Ayden eat?

_____
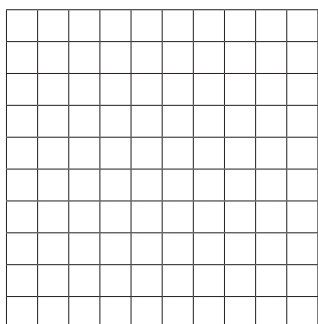
4. Maria brought 0.9 liter of lemonade for lunch. She drank 0.5 of the lemonade. How much of a liter did she drink?

_____
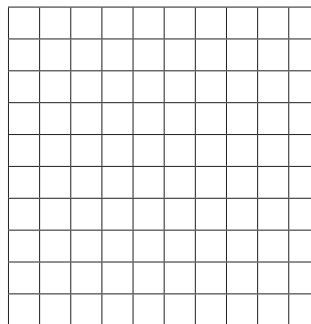
5. Mrs. Wilson had 0.5 pound of buttons. She used 0.6 of the buttons to teach a lesson. How much of a pound of buttons did she use for the lesson?

_____
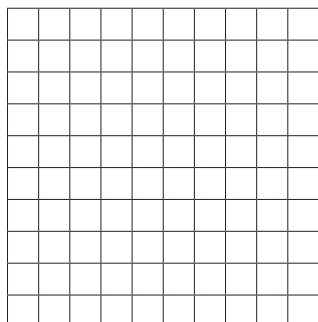
Solve the problem.

6. Rain is falling steadily at the rate of 0.6 inch each hour. If it continues raining at that rate, how much rain will fall in 0.75 hour? Hint: (6 × 75 = 450)

_____

5

Mental Math!

a. Beans were sold 6 cans for $3 or for 52¢ each.
Which is the better buy?

b. Tomato juice was sold three cans for $1.99 or 59¢ each.
Which is the better buy?

Name _____

Try This

Jake has a 1.2-meter piece of dowel rod. He needs to cut the dowel into 0.3-meter pieces. How many pieces can he make?

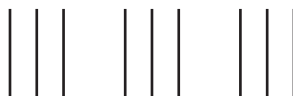- Model the dividend with Base Ten Blocks.
- Divide.
- Sketch your model.
- Write an equation to show the answer.

Think: Dividend is 1 flat and 2 rods. How many groups of 0.3 can I make from 1.2? Trade the flat for 10 rods. Divide the rods into groups of 0.3.

| | | | | | | | |

$1.2 \div 0.3 = 4$

---

1. If Jennifer runs 0.5 miles every morning, how many days will it take her to run 2.5 miles?

_____

2. Michelle has 3.2 feet of string. She needs to cut the string into pieces that are 0.4 feet long. How many pieces will she have?

_____

Answer the question.

3. Review problems 1–2. Compare your equations with the following equations.

$25 \div 5 = 5$

$32 \div 4 = 8$

Describe your findings, and explain them.

_____

_____

_____

_____

Use your findings in problem 3 to solve the problem. Write an equation to show the answer.

4. The cheerleading squad has 4.9 meters of ribbon to make bows for the banquet. Each bow takes 0.7 meter. How many bows can the squad make?

_____

5. Patty is putting a fence around her vegetable garden. The fencing comes in sections that are 0.9 meter long. The perimeter of the garden is 7.2 meters. How many sections of fence does she need?

_____

6. Alicia wants to put square paving stones along a flower bed. The flower bed is 17.4 feet long. Each paving stone is 0.6 feet on a side. How many paving stones does Alicia need?

_____

7. Derrick is making costumes for the class play. Each cape takes 0.8 yards of blue cloth. Derrick has 14.4 yards of blue cloth. How many capes can he make?
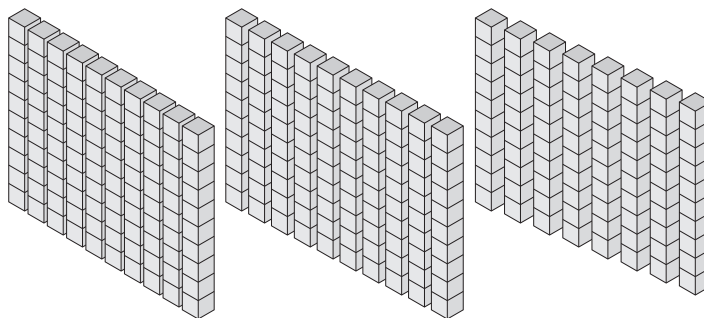
_____

Solve.

8. $1.44 \div 0.12 =$ _____

9. $1.25 \div 0.25 =$ _____

Name _____

Use Base Ten Blocks to build the model. Use the model to solve the problem. Write an equation to show the answer.

1. Jeffrey has a 2.8-meter-long piece of wood. He needs to cut the wood into pieces that are 0.4 meter long. How many pieces can he cut?

_____

Use Base Ten Blocks to model the problem. Sketch the model. Write an equation to show the answer.

2. If Holly runs 0.5 mile every day, how many days will it take her to run 1.5 miles?

_____

3. The decorating committee has 3.2 meters of ribbon to make bows for the banquet. Each bow takes 0.8 meter of ribbon. How many bows can the committee make?

_____

4. Consuela is putting a fence around a flower bed. The fencing comes in sections that are 1.3 meters long. The perimeter of the flower bed is 3.9 meters. How many sections of fence does she need?

_____

Name _____

Answer the question.

5. Review problems 2–4. Compare your equations with the following equations.

$15 \div 5 = 3$

$32 \div 8 = 4$

$39 \div 13 = 3$

Describe your findings, and explain them.

_____

_____

_____

_____

Use your findings in problem 5 to solve the problem. Write an equation to show the answer.

6. Michael wants to make a sidewalk between the garage and the patio. The sidewalk will be 11.5 meters long. Each section will be a square 0.5 meter on a side. How many sections long will the sidewalk be?

_____

7. Jamal has 3.4 liters of apple juice. If he puts 0.2 liter of juice in each glass, how many glasses can he fill?

_____