1	U10L4	Two-Step Problems Involving Multiplication and Division	Work Together	Page :138

Work Together

Last week, Mason brought 28 watermelon slices to soccer practice. Each of the 7 players got the same number of slices. This week, Mason doubles the number of slices for each player. Write equations with a letter for the unknown to find the number of watermelon slices he gives each player this week.

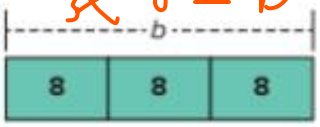
① $28 \div 7 = 4$

② $4 \times 2 = 8$

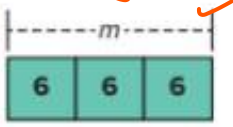
1	U10L4	Two-Step Problems Involving Multiplication and Division	(1-5)	Page :139

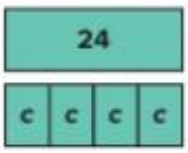
What equation represents the bar diagram?

1. $3 \times 8 = b$



2. $6 \times 3 = m$





$24 \div 4 = c$

$18 \div 9 = 2$

$18 \div 2 = 9$

How can you use equations with letters for the unknowns to solve the problem?

3. Jerry's mother brings orange slices to dance class. She cut each orange into 4 slices. There are 2 slices for each of the 8 dancers. How many oranges did his mother cut?

① $2 \times 8 = m$

$m = 16$

② $16 \div 4 = b$

$b = 4$

4. Connie's photo album has 6 pages and each page has 6 photos. She decides to put all the photos already in her album on just 4 pages. She puts the same number of photos on all 4 pages. How many photos will she put on each page?

① $6 \times 6 = m = 36$

② $36 \div 4 = b = 9$

5. How do you know when to multiply and when to divide to solve a real-world problem? Explain your reasoning.

1	U10L4	Two-Step Problems Involving Multiplication and Division	(6-10)	Page :140

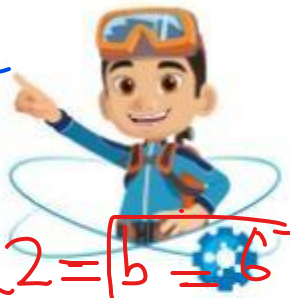
How can you use equations with letters for the unknowns to solve the problem?

6. Lana brings home 48 shells from the beach. She divides the shells into 6 equal groups and keeps 1 group for herself. Then she gives half of her group to her brother. How many shells does Lana give to her brother?

① $48 \div 6 = m$; $m = 8$

② $8 \div 2 = b$; $b = 4$

7. **STEM Connection** Hiro explored 12 shipwrecks with 4 robots. Each robot explored the same number of shipwrecks. One of the robots brought back 2 items from each wreck it explored. How many objects did it bring back?



① $12 \div 4 = m = 3$ ② $3 \times 2 = b = 6$

8. Francine uses 24 yards of fabric to make 8 blankets. She uses the same amount of fabric for each blanket. How many yards of fabric does she need to make 4 blankets?

① $24 \div 8 = 3$ ② $3 \times 4 = 12$

9. Kyle buys 9 spools of ribbon. Each spool has 4 yards of ribbon on it. If she uses 6 yards of ribbon per bow, how many bows can she make?

① $9 \times 4 = 36$ ② $36 \div 6 = 6$

10. **Extend Your Thinking** Mrs. Tyler buys boxes of pencils. She gives 5 pencils to each student. 8 students get pencils. How many boxes could she have bought and how many pencils could be in each box?

① $5 \times 8 = 40$ ② $40 \div 4 = 10$

2	U10L6	Explain the Reasonableness of a Solution	(1-4)	Page :147

How can you estimate to determine the reasonableness of an answer? Circle the reasonable answer.

1. At the train station, Matt buys breakfast for $4 and 3 weekly train passes for $9 each. How much does Matt spend at the station?

A. $21 B. $31

C. $18 D. $55

① $3 \times 9 = 27$

② $27 + 4 = 31$

2. Ava shares 42 stickers evenly among 6 friends. Then she gives each friend 4 more stickers. How many stickers does each friend receive?

A. 11 stickers B. 25 stickers

C. 5 stickers D. 33 stickers

① $42 \div 6 = 7$

② $7 + 4 = 11$

2	U10L6	Explain the Reasonableness of a Solution	(1-4)	Page :147

Is the answer reasonable? Show your thinking.

3. Maria walks 3 minutes to the bus stop. Then she rides the bus 8 minutes to get to school. She does this 5 days per week. She says she spends 55 minutes traveling to school each week.

Yes, reasonable

4. Marcus spends $36 on sunflowers and buys 4 zinnia plants for his garden. Marcus says he spent $98 on plants.

Flower Prices	
Sunflowers	$6
Daisies	$7
Zinnias	$8

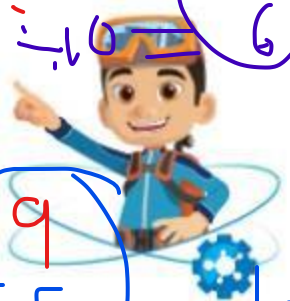
2	U10L6	Explain the Reasonableness of a Solution	(5-8)	Page :148

Solve. Then use an estimate to show that your answer is reasonable.

5. John has 7 packages of pencils. There are 9 pencils in each package. He donates 49 pencils to the school supply closet. How many pencils does John have left?

6. Evelyn has 80 beads. She uses 24 for a necklace. She wants to use the rest to make 8 bracelets with the same number of beads on each. How many beads will each bracelet have?

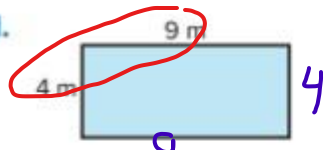
7. **STEM Connection** Hiro designs a boat to carry research supplies. His boat carries 6 crates filled with 9 boxes each. It also carries 5 boxes of snacks. He thinks the boat carries 59 boxes. Is his answer reasonable?



8. **Extend Your Thinking** Kara has a box of 30 crackers. She eats 3 and wants to give the rest to 5 friends to share equally. She estimates there are enough for each friend to get 5 crackers. Explain Kara's estimate.

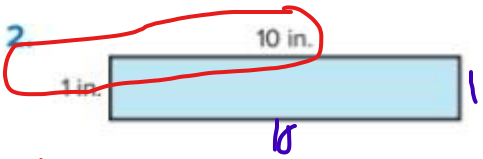
3	U11L4	a) Solve Problems Involving Area and Perimeter	(1-8)	Page :171

What is the perimeter and area of the figure? Include the unit.

1. 

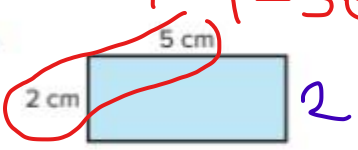
perimeter = $4+9+4+9=26$

area = $4\times9=36$

2. 

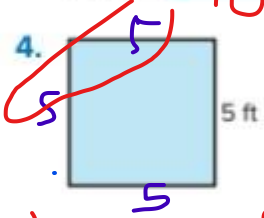
perimeter = $10+1+10+1=22$

area = $10\times1=10$

3. 

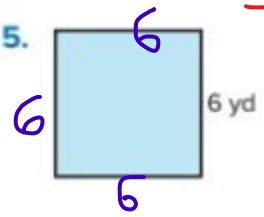
perimeter = $5+2+5+2=14$

area = $5\times2=10$

4. 

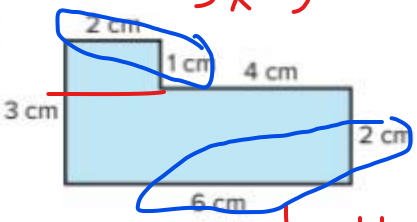
perimeter = $5+5+5+5=20$

area = $5\times5=25$

5. 

perimeter = $6+6+6+6=24$

area = $6\times6=36$

6. 

perimeter = $2+1+4+2+6+3=18$

area = $2\times1=2$ | $2\times6=12$

$12+2=14$

7. A rectangle has an area of 20 square centimeters. What could be the length and width of the rectangle?

20

$4\times5=20$ | $2\times10=20$

8. A rectangular patch of grass has a perimeter of 24 feet. If one of the side lengths is 10 feet, what are the other side lengths? Write an equation to support your answer.

10

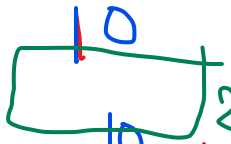
$10+10=20$

2

$24-10=4$

2

$4\div2=2$



$P=24$

3	U11L5	b) Solve Problems Involving Measurement	(8-11)	Page :178

8. **Error Analysis** Mandy needs to make 4 bracelets. Each requires 9 inches of string. She says she can use an equation to help her find the total number of inches she needs. Do you agree? Explain why or why not.

X

$4\times9=36$

Yes

9. Sheila tapes together 4 postcards. The total length of the 4 postcards is 24 inches. How long is each postcard? Write an equation to represent the problem.

$24\div4=6$

3	U11L5	b) Solve Problems Involving Measurement	(8-11)	Page :178

10. A classroom is 28 feet wide. The teacher divides the classroom into 4 sections of equal width. How wide is each section? Write an equation to represent the problem.

28 ÷ 4 = 7

11. Extend Your Thinking The school track is 400 meters. Sahir ran half the length of the track. Esme ran half the length that Sahir ran. How far did Esme run? Explain your thinking.

① 400 ÷ 2 = 200

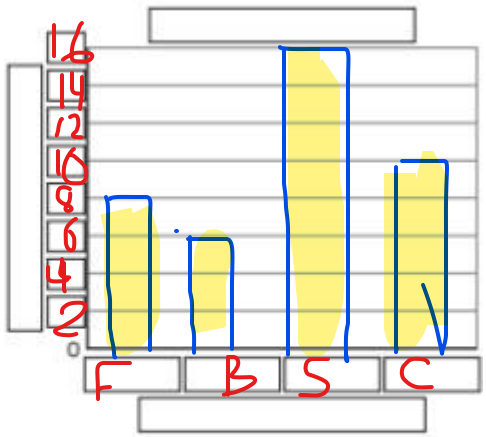
② 200 ÷ 2 = 100

= 5 Me

4	U12L8	Understand Scaled Bar Graphs	(1,2)	Page :217

1. How can you display the data in a scaled bar graph?

Class Goldfish Name	
Name	**Number of Votes**
Flash	8
Bubbles	6
Squirt	16
Cheese	10



a. How did you decide the scale of your graph?

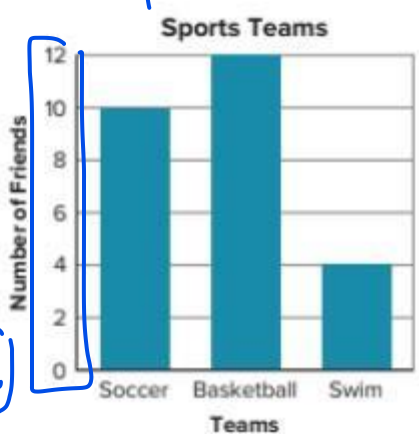
even

b. What is another scale you could use for your graph?

4

2. Error Analysis Cameron created a bar graph using the data in the table. How can you explain the error in the graph?

Sports Teams	
Team	**Number of Friends**
Soccer	5
Basketball	6
Swim	2



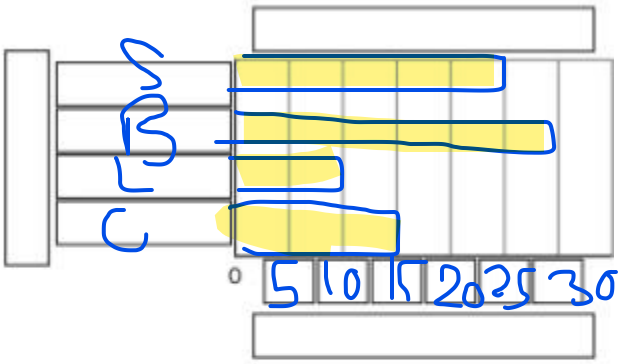
scale by 2

he Complete by 1

4	U12L8	Understand Scaled Bar Graphs	(3-5)	Page :218

3. How can you display the data in a scaled bar graph?

Summer Trips	
Place	Trips to Each Place
City	15
Lake	10
Beach	30
State Park	25



4. Which parts of the graph did you need to complete before displaying the data with bars? Explain why these needed to be completed first

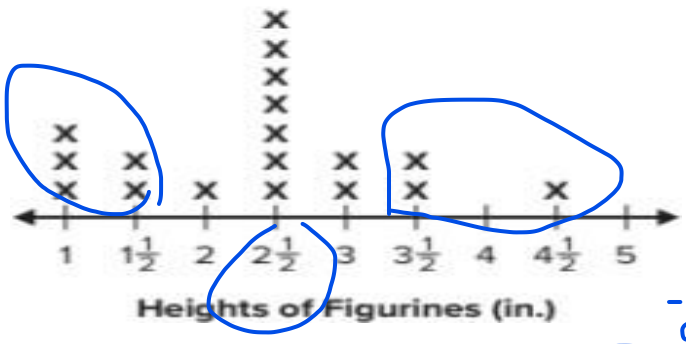
scale and names

5. How can you explain the difference between a scaled bar graph and a bar graph?

scale greater than 1 by 1

5	U12L11	Show Measurement Data on a Line Plot	(1-9)	Page :231

Use the line plot to complete exercises 1 through 3.



1. How many figurines are in the collection?

18

2. Which height is most common?

2½

3. Which measurements were not the height of any figurine ?

4 و 5

4. How many figurines are shorter than 2 inches?

5

5. How many figurines are taller than 3 inches?

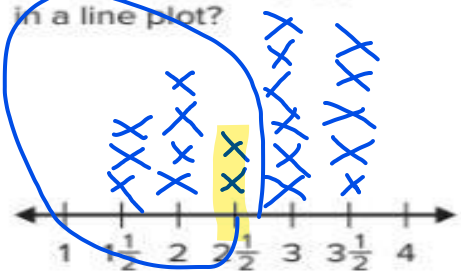
3

5	U12L11	Show Measurement Data on a Line Plot	(1-9)	Page :231

Brody measures his crayons to the nearest half inch. He records the measurements in a table.

Crayon Lengths (in.)				
2	3	$1\frac{1}{2}$	3	$1\frac{1}{2}$
$3\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	3	2
2	$3\frac{1}{2}$	3	2	$2\frac{1}{2}$
3	$3\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{2}$	3

6. How can you display the data in a line plot?



Lengths of Crayons (in.)

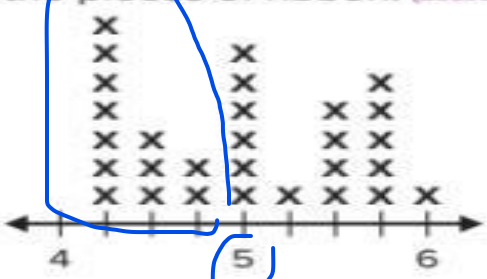
7. How many crayons are $2\frac{1}{2}$ inches long?

8. How many more 3-inch crayons are there than $1\frac{1}{2}$-inch crayons?

9. How many crayons are shorter than 3 inches?

5	U12L11	Show Measurement Data on a Line Plot	19	Page :235

19. Each student was given a piece of ribbon and asked to measure its length to the nearest quarter inch. The line plot shows the lengths of all the pieces of ribbon. (Lesson 12-11)



Lengths of Ribbon (inches)

How many pieces of ribbon are less than 5 inches long?

A. 12
B. 18
C. 29
D. 6