

**Incoming 4<sup>th</sup> Grade**

**SUMMER**

**MATH**

**PACKET**



Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Chloe has 7 groups of marbles.  
There are 8 marbles in each group.  
Which math expression represents the total number of marbles?

- A.  $7 + 8$
- B.  $8 - 7$
- C.  $7 \times 8$
- D.  $8 \times 8$

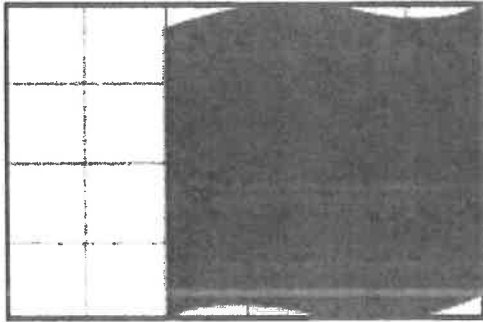
2. Heather bought six 10-packs of fruit bars and four 8-packs of yogurt cups for snacks after school. If  $T$  is the total number of snacks, which equation represents the number of snacks Heather bought?

- A.  $T = (6 \times 4) + (10 \times 8)$
- B.  $T = (6 + 4) + (10 + 8)$
- C.  $T = (6 + 10) \times (4 + 6)$
- D.  $T = (6 \times 10) + (4 \times 8)$

3. A student started at 0 and counted by 3s.  
What numbers will be counted?  
Choose the **two** correct answers.

- A. 21
- B. 29
- C. 33
- D. 40

4. There are 24 squares in all. How many squares are covered?



- A. 4 squares
- B. 9 squares
- C. 16 squares
- D. 19 squares

5. Match each multiplication equation with its product.  
Numbers may be used once, more than once, or not at all.

20      25      30      35      40      45

$9 \times 5 =$  \_\_\_\_\_

$10 \times 2 =$  \_\_\_\_\_

$5 \times 6 =$  \_\_\_\_\_

$4 \times 10 =$  \_\_\_\_\_

$5 \times 4 =$  \_\_\_\_\_

- 6.** Match each division equation with its quotient.  
Numbers may be used once, more than once, or not at all.

**3      4      5      6      7      8**

$$32 \div 8 = \underline{\hspace{2cm}}$$

$$35 \div 7 = \underline{\hspace{2cm}}$$

$$42 \div 6 = \underline{\hspace{2cm}}$$

$$48 \div 8 = \underline{\hspace{2cm}}$$

$$49 \div 7 = \underline{\hspace{2cm}}$$

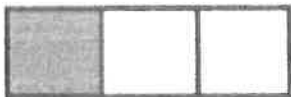
- 7.** Melanie is playing a video game.  
She has already scored 45 points.  
She scores 3 points every minute for 10 minutes.  
How many points has she scored now?

- A. 48 points
- B. 58 points
- C. 75 points
- D. 105 points

- 8.** Multiply. Write your answer below.

$$4 \times 50 = \underline{\hspace{2cm}}$$

9. Which unit fraction represents the shaded part of the rectangle?



- A.  $\frac{1}{6}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{2}$

10. Which fraction is located at point M on the number line?  
Choose the **two** correct answers.



- A.  $\frac{1}{6}$
- B.  $\frac{3}{8}$
- C.  $\frac{6}{8}$
- D.  $\frac{3}{4}$

**11.** Which of the following fractions is equivalent to  $\frac{2}{6}$ ?

A.  $\frac{1}{3}$

B.  $\frac{1}{2}$

C.  $\frac{2}{3}$

D.  $\frac{3}{3}$

**12.** Which of the following fractions are equivalent to 3?  
Choose the **two** correct answers.

A.  $\frac{8}{2}$

B.  $\frac{6}{2}$

C.  $\frac{3}{3}$

D.  $\frac{3}{6}$

E.  $\frac{3}{1}$

**13.** Circle a symbol to make the statement true.

$\frac{1}{4} = < > \frac{1}{3}$

**14.** Which of the following statements is true?

A.  $\frac{3}{4} = \frac{5}{4}$

B.  $\frac{3}{4} > \frac{5}{4}$

C.  $\frac{5}{4} < \frac{3}{4}$

D.  $\frac{5}{4} > \frac{3}{4}$

**15.** What time does the clock show?



A. 2:35

B. 7:02

C. 7:12

D. 8:02

**16.** Ms. Sanchez bought 36 markers for her class.

The markers come in packs of 6.

Choose the two equations she can use to find the number of 6-packs she bought.

A.  $36 \times 3 = ?$

B.  $36 \div 6 = ?$

C.  $? \times 6 = 36$

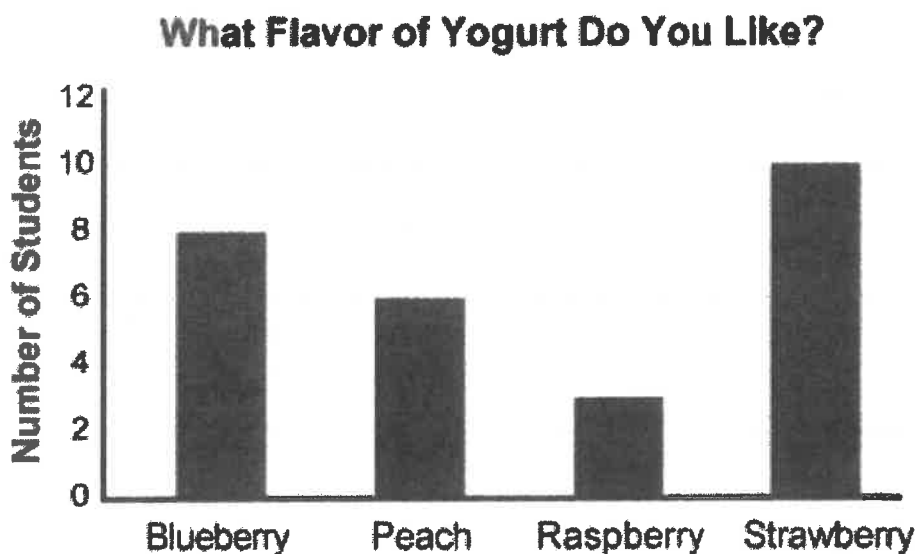
D.  $? \div 36 = 6$



**17.** There are 96 oranges in 8 boxes. Each box contains the same number of oranges. How many oranges are in each box?

- A. 9 oranges
- B. 11 oranges
- C. 12 oranges
- D. 15 oranges

**18.** Use the bar graph to answer the questions.



Use the numbers to answer each question.  
Numbers may be used once or not at all.

**3      5      7      10      14      18**

How many students like strawberry? \_\_\_\_\_

How many more students like blueberry than raspberry? \_\_\_\_\_

How many fewer students like raspberry than peach? \_\_\_\_\_

**19.** Round 737 to the nearest 10 and to the nearest 100.  
Choose the **two** correct answers.

- A. 700
- B. 730
- C. 740
- D. 800

**20.** Which expression is **NOT** equal to  $207 + 283$ ?

- A.  $200 + 290$
- B.  $205 + 285$
- C.  $210 + 280$
- D.  $215 + 280$

**21.** A ruler has a mass of 9 grams. What is the total mass of 5 rulers?

- A. 14 grams
- B. 45 grams
- C. 50 grams
- D. 59 grams

**22.** Three containers of juice have a total liquid volume of 18 cups.  
Each container has the same liquid volume.  
What is the volume of each container of juice?

- A. 6 cups
- B. 9 cups
- C. 15 cups
- D. 54 cups

- 23.** Dara asked her classmates the following question:  
What is your favorite type of dog?  
The pictograph shows her data.

<b>Beagle</b>	
<b>Cocker Spaniel</b>	
<b>Husky</b>	
<b>Pug</b>	

**Key:** 😊 = 2 students

How many more students chose husky than beagle?

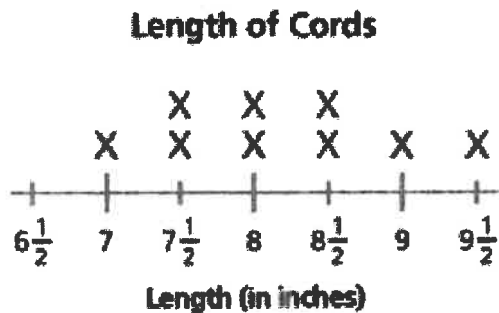
- A. 3 students
- B. 6 students
- C. 9 students
- D. 15 students

- 24.** Cassie used cords to make friendship bracelets. She measured the lengths of the cords in inches. Her data are in the table.

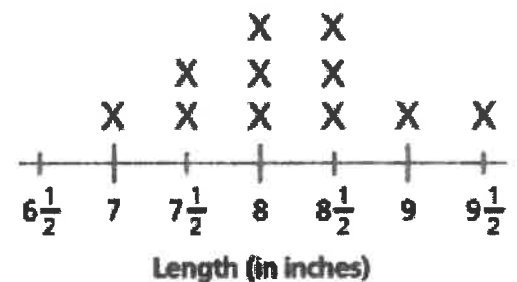
7	9	$9\frac{1}{2}$	8	$7\frac{1}{2}$
$8\frac{1}{2}$	$7\frac{1}{2}$	8	8	$8\frac{1}{2}$

Which line plot shows the data?

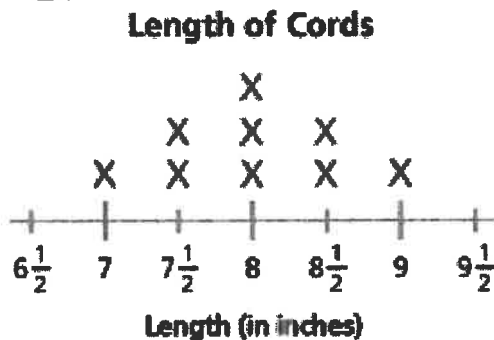
A.



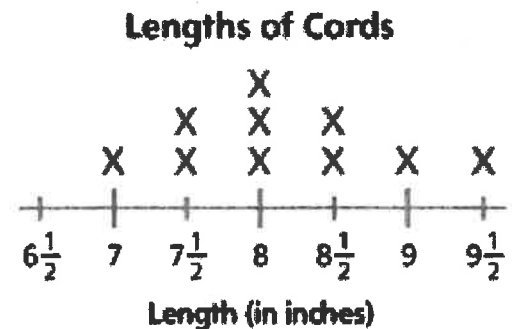
C. **Length of Cords**



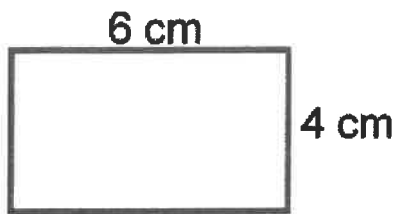
B.



D.

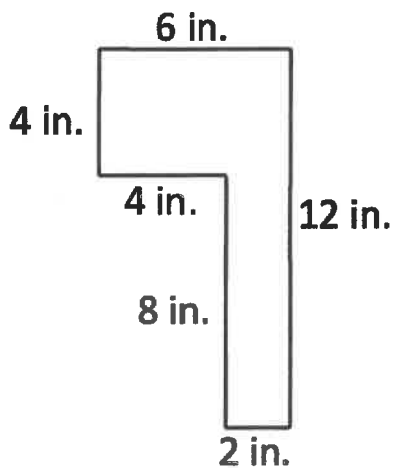


**25.** What is the area of the rectangle?



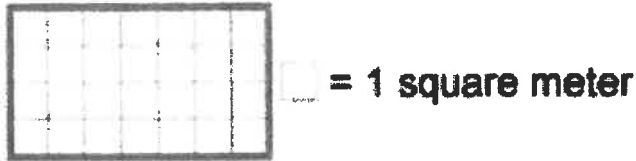
- A. 10 square centimeters
- B. 12 square centimeters
- C. 20 square centimeters
- D. 24 square centimeters

**26.** What is the area of the shape?



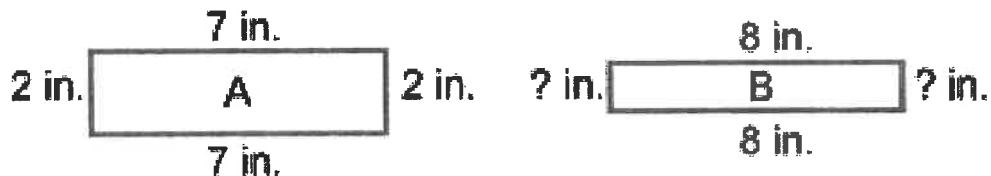
- A. 56 square inches
- B. 48 square inches
- C. 40 square inches
- D. 36 square inches

27. A rectangular patio is 7 meters long and 4 meters wide.



How can you find the area of the patio?  
Choose the **three** correct answers.

- A. Count all of the square meters shown in the rectangle.
  - B. Add the number of square meters shown in each row:  
 $7 + 7 + 7 + 7 = 28$
  - C. Add the sides of the patio:  $7 + 4 + 7 + 4 = 22$
  - D. Multiply the length of the patio by the width of the patio:  
 $7 \times 4 = 28$
  - E. Count one row of square meters and one column of square meters.
28. Rectangle A and Rectangle B have equal perimeters.  
What is the measure of both unknown side lengths on rectangle B?



- A. 1 inch
- B. 2 inches
- C. 3 inches
- D. 4 inches

**29.** Which of the following shapes always has 2 pairs of parallel sides? Choose the **two** correct answers.

- A. rectangle
- B. trapezoid
- C. square
- D. quadrilateral

**30.** Find the difference.

$$500 - 186 = ?$$

- A. 686
- B. 486
- C. 414
- D. 314







NAME \_\_\_\_\_

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## Representing and Interpreting Data

### Problem 2. What Animal Would You Like to Have for a Pet?

Here are the answers from a Grade 3 class to the question "What animal would you like to have as a pet?"

On another sheet of paper, use a bar graph or a pictograph to organize and represent these data.

Then write about what you found out about this class from the data.

polar bear	cat	goldfish	puppy
octopus	poodle	cat	dog
cat	dog	angelfish	lion
tiger	shark	dog	kitten
horse	puppy	kittens	puppy
dog	turtle	hamster	sea horse



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# Representing and Interpreting Data

## Problem 1. Jump Distances

On Field Day, Mr. Keith's Grade 3 students recorded the following distances in inches for their standing broad jumps:

33	$33\frac{1}{2}$	32	$30\frac{1}{2}$	31	34
$32\frac{1}{2}$	30	33	26	34	30
34	25	$30\frac{1}{2}$	33	26	$27\frac{1}{2}$
31	39	26	34	$28\frac{1}{2}$	32

On a separate sheet of paper, make a line plot to represent the data.

Write a report to Ms. Brown, the gym teacher, about Mr. Keith's class. Tell her the most important things she should know about their data.

Dear Ms. Brown,

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NAME \_\_\_\_\_

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## Addition and Subtraction Problems

Write equations for the problems, solve the problems, and show your solutions.

- 3** Two third-grade classes sold muffins at a school bake sale. Mr. Jackson's class sold 204 muffins, and Ms. Santos's class sold 183 muffins. How many more muffins did Mr. Jackson's class sell than Ms. Santos's class?

- 4** Mr. Jackson's students are trying to read 150 books this year. So far they have read 78 books. How many more books do they need to read to reach their goal?



NAME \_\_\_\_\_

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# Addition and Subtraction Problems

Solve the following problems and show your solutions.

1  $237 + 98$  \_\_\_\_\_

2  $232 - 165$  \_\_\_\_\_

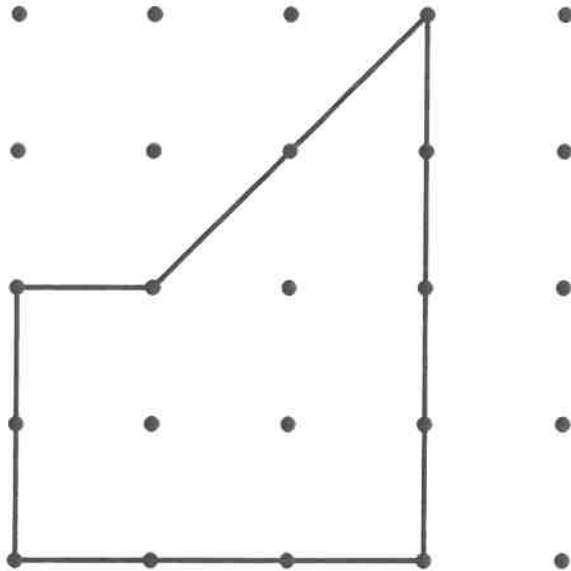


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## Finding Area

- 1 Look at the shape below.



What is the area of this shape in square units?  
Explain how you know.





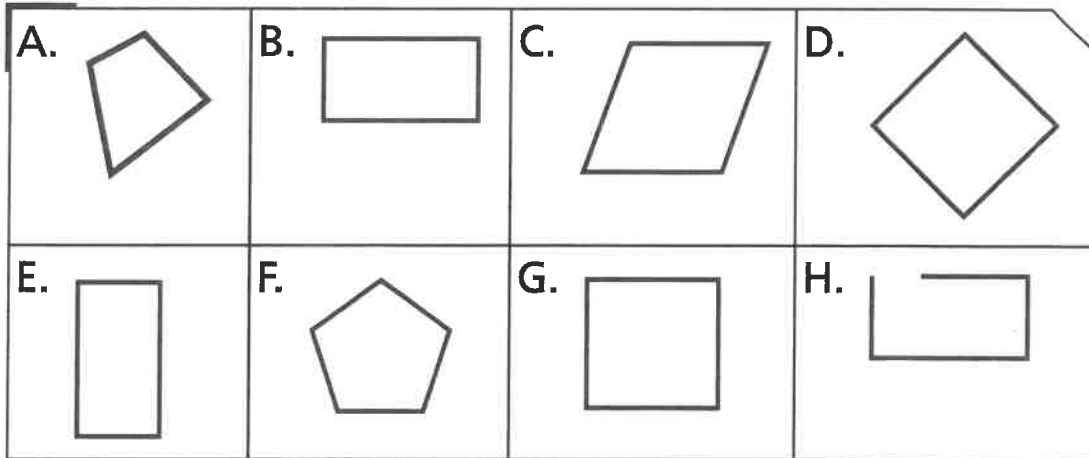
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# Area and Quadrilaterals

2 Look at these shapes.



Write in the letters of shapes that answer each question.  
Some shapes may have more than one name.

A Which of these shapes are quadrilaterals? \_\_\_\_\_  
List two reasons these shapes are quadrilaterals.

\_\_\_\_\_

\_\_\_\_\_

List at least one reason why the others are not quadrilaterals.

\_\_\_\_\_

B Which of the quadrilaterals are rhombuses? \_\_\_\_\_

Which are rectangles? \_\_\_\_\_

Which are squares? \_\_\_\_\_

C Draw another quadrilateral that is **NOT** a square, rectangle, or rhombus.

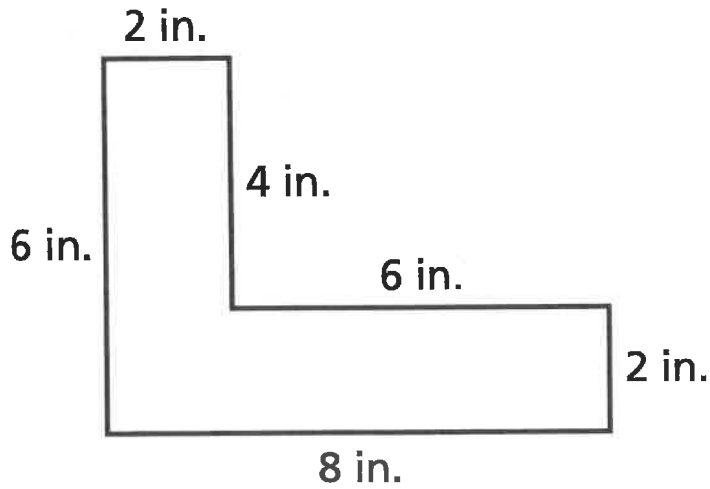
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# Area and Quadrilaterals

- 1 Look at the shape below.



What is the area of this shape?  
Show how you know.



NAME \_\_\_\_\_

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# Multiplication and Division Problems

For each problem, write an equation that represents the problem and solve it.

- 1** In Mr. Clark’s class 8 groups of students are working on a project. Each group needs 9 pieces of paper for the project. How many pieces of paper are needed altogether?
  
  
  
  
  
  
  
  
  
  
- 2** Ms. Simpson bought 42 glue sticks for her class. The glue sticks come in packs of 6. How many packs did she buy?





NAME \_\_\_\_\_

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## Solving Word Problems

Solve the following problems. Show how you solved each problem, including equations.

**1**

Oscar orders four 70-packs of balloons and three 8-packs of toy people to sell at his party store. How many items does he order from The Toy Factory?

**2**

Jung bought 27 spinning tops to give out at her birthday party. How many 3-packs did she buy?





NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Representing and Comparing Fractions

- 3** Write two fractions that are equivalent to  $\frac{1}{2}$ .

$$\frac{1}{2} = \underline{\hspace{2cm}}$$

$$\frac{1}{2} = \underline{\hspace{2cm}}$$

Show or explain how you know the fractions are equivalent.



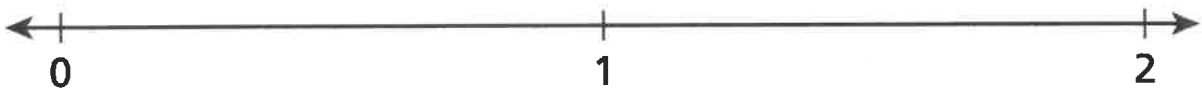
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# Representing and Comparing Fractions

- 1 Place the following fractions on the number line below:  $\frac{5}{3}$ ,  $\frac{1}{6}$ ,  $\frac{4}{6}$ ,  $\frac{3}{3}$ ,  $\frac{2}{3}$ .



- 2 Compare  $\frac{2}{8}$  and  $\frac{2}{6}$ . Which fraction is greater? Or are the fractions equal? Use  $<$ ,  $>$ , or  $=$  to show your solution.

How do you know? Explain using words or words with a number line, brownies, or other representation.



