

eMPower™ **ME**

STUDENT
SAMPLE ITEM BOOKLET

Mathematics

Grade 5





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Sample Items

Directions

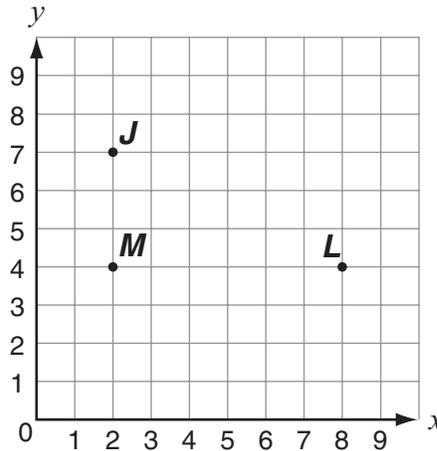
Read each question and choose the best answer.

1. Which is equivalent to 20×500 ?
 - A 10^3
 - B 10^4
 - C 10^5
 - D 10^6

2. The volume of a box is 72 cubic inches. The area of the bottom of the box is 18 square inches. What is the height of the box?
 - A 54 inches
 - B 27 inches
 - C 8 inches
 - D 4 inches

3. Which statement is true?
 - A All quadrilaterals are parallelograms.
 - B All trapezoids are parallelograms.
 - C All quadrilaterals are trapezoids.
 - D All trapezoids are quadrilaterals.

4. Three points of rectangle $JKLM$ are plotted.



- What is the ordered pair for **each** point J , L , and M ?
- Point K is the fourth point of the rectangle. What is the ordered pair for point K ? Explain your reasoning.
- What is the perimeter, in units, of rectangle $JKLM$? Show or explain how you found your answer.

Use the information below to answer questions 5 and 6.

Look at this problem.

Craig caught 24 fish at a fishing tournament. Each fish was one of four types: a bluegill, a catfish, a walleye, or a bass. Each fish has at least 2 different colors.

- $\frac{1}{3}$ of the fish were bluegills
- $\frac{1}{6}$ of the fish were catfish
- $\frac{1}{4}$ of the fish were walleyes

The rest of the fish were bass. How many fish were bass?

5. Which information is **not** needed to solve the problem?
- the number of bluegills
 - the number of catfish
 - the number of walleyes
 - the number of colors

6. Here are four students' solutions to the problem. Each student circled the answer.

Greg

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

$$24 - 18 = \textcircled{6}$$

Sara

$$\frac{1}{3} + \frac{1}{6} + \frac{1}{4} = \frac{3}{13}$$

$$3 + 13 = 16$$

$$24 - 16 = \textcircled{8}$$

Lisa

$$\frac{1}{3} = \frac{8}{24}$$

$$\frac{1}{6} = \frac{4}{24}$$

$$\frac{1}{4} = \frac{6}{24}$$

$$\frac{18}{24} + \frac{6}{24} = \frac{24}{24}$$

$$\textcircled{6}$$

Todd

$$\frac{1}{3} = \frac{4}{12}$$

$$\frac{1}{6} = \frac{2}{12}$$

$$\frac{1}{4} = \frac{3}{12}$$

$$\frac{12}{12} - \frac{9}{12} = \frac{3}{12}$$

$$\textcircled{3}$$

Which student's solution is correct?

- A Greg
- B Sara
- C Lisa
- D Todd