

eMPower™ **ME**

STUDENT  
SAMPLE ITEM BOOKLET

**Mathematics**

Grade 4





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# Sample Items

## Directions

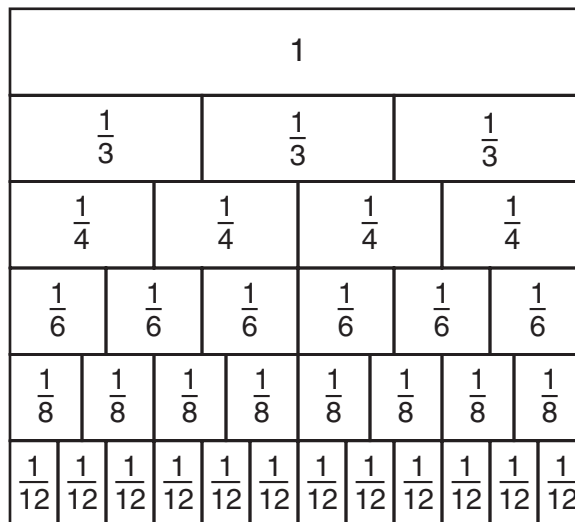
Read each question and choose the best answer.

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1. Six hundred seven thousand, fifty people live in a city. Which expression shows another way to write the number of people who live in the city?

- A  $6 \times 100 + 7 \times 1,000 + 5 \times 10$
- B  $6 \times 10,000 + 7 \times 1,000 + 5 \times 10$
- C  $6 \times 100,000 + 7 \times 1,000 + 5 \times 10$
- D  $6 \times 100,000 + 7 \times 10,000 + 5 \times 1,000$

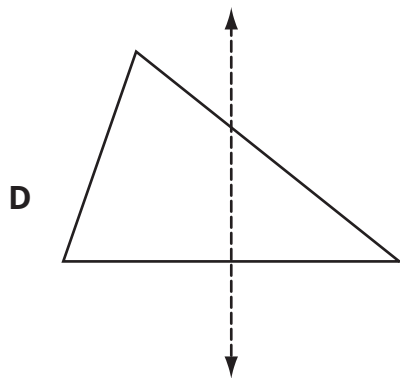
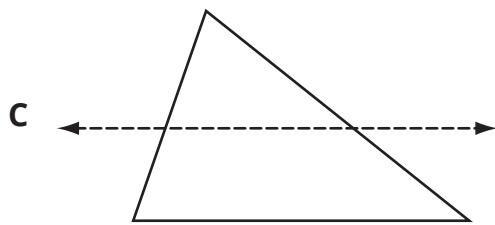
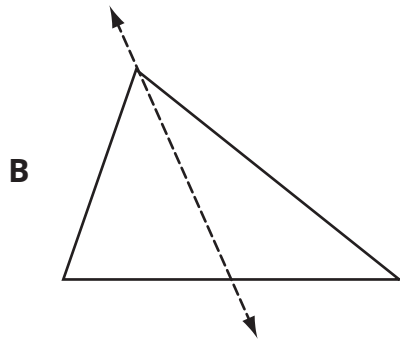
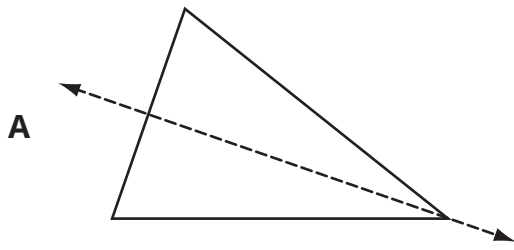
2. Use the fraction strips to help you answer the question.



Lucy painted  $\frac{5}{6}$  of her fence in the morning. What fraction is equal to  $\frac{5}{6}$ ?

- A  $\frac{1}{3}$
- B  $\frac{1}{4}$
- C  $\frac{7}{8}$
- D  $\frac{10}{12}$

3. Which figure shows a triangle with its line of symmetry?



4. A science teacher measures two liquids, 0.09 liter of oil and 0.2 liter of water.
- Write 0.09 as a fraction.
  - Write a number sentence that compares 0.09 and 0.2.

The teacher puts the two liquids in the same container.

- How many liters of liquid are in the container? Show your work or explain how you know.

Use the information below to answer questions 5 and 6.

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Mr. Bratly's students are solving this problem.

A gymnasium is in the shape of a rectangle. It is 3 times as long as it is wide. The gymnasium is 150 feet long. What is the perimeter of the gymnasium?

5. What is a first step that will help a student solve this problem?
- Find the area of the gymnasium.
  - Find the width of the gymnasium.
  - Find the length of the gymnasium.
  - Find the perimeter of the gymnasium.
6. Here are four students' answers to the problem.
- Archer says the perimeter is 7,500 feet because  $150 \times 50 = 7,500$ .
  - Barbara says the perimeter is 600 feet because  $150 + 450 = 600$ .
  - Sofia says the perimeter is 306 feet because  $150 + 150 + 3 + 3 = 306$ .
  - Liam says the perimeter is 400 feet because  $150 + 150 + 50 + 50 = 400$ .

Which student is correct?

- Archer
- Barbara
- Sofia
- Liam