

eMPower™ **ME**

STUDENT  
SAMPLE ITEM BOOKLET

**Mathematics**

Grade 3





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# Sample Items

## Directions

Read each question and choose the best answer.

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1. A gym teacher is putting students into teams.
- There are 24 students.
  - There will be 3 students on each team.

Which expression can be used to find the number of teams made by the gym teacher?

- A  $24 \times 3$
- B  $24 \div 3$
- C  $24 + 3$
- D  $24 - 3$
- 
2. Which expression is another way to write  $3 \times 8$ ?
- A  $3 \times 6 + 2$
- B  $3 + 6 \times 2$
- C  $3 + 6 \times 3 + 2$
- D  $3 \times 6 + 3 \times 2$

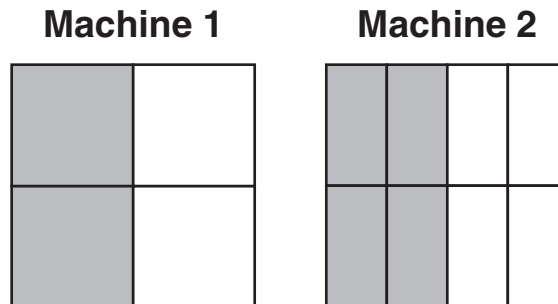
3. Maurice divided a rectangular garden into six equal parts. He plans to grow a different vegetable in each part of the garden, as shown.

Peas	Tomato	Onion
Squash	Pepper	Potato

What fraction of the garden is Maurice planning to use for onions?

- A  $\frac{1}{6}$
- B  $\frac{1}{5}$
- C  $\frac{5}{6}$
- D  $\frac{6}{1}$

4. Two machines at a factory cut large squares of cardboard into smaller pieces, as shown.
- Machine 1 cuts each large square into 4 smaller squares.
  - Machine 2 cuts each large square into 8 rectangles. Each rectangle is the same size.



- What fraction describes the shaded part of the large square cut by machine 1?
- What fraction describes the shaded part of the large square cut by machine 2?
- Is the shaded part of the large square for machine 1 equal in size to the shaded part of the large square for machine 2? Show your work or explain how you know.

At the factory, machine 3 cuts the large squares of cardboard into 6 rectangles. Each rectangle is the same size.

- How many of the rectangles from machine 3 equal the shaded amount of rectangles from machine 2?

Use the information below to answer questions 5 and 6.

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Look at this problem.

Mr. Neitzel set up 7 rows of folding chairs. There were 9 folding chairs in each row. He placed 2 tables between each row of chairs. Mr. Neitzel also set up 10 high chairs. How many chairs in all did Mr. Neitzel set up?

5. What information is **not** needed to solve the problem?
- A the number of rows of folding chairs
  - B the number of folding chairs in each row
  - C the number of tables
  - D the number of high chairs
6. Emma used this equation to find the number of folding chairs Mr. Neitzel set up.

$$7 \times 9 = \square$$

Which equation can Emma use to check her work?

- A  $\square = 7 + 9$
- B  $\square \div 9 = 7$
- C  $\square - 7 = 9$
- D  $\square \times 9 = 7$

**STOP**