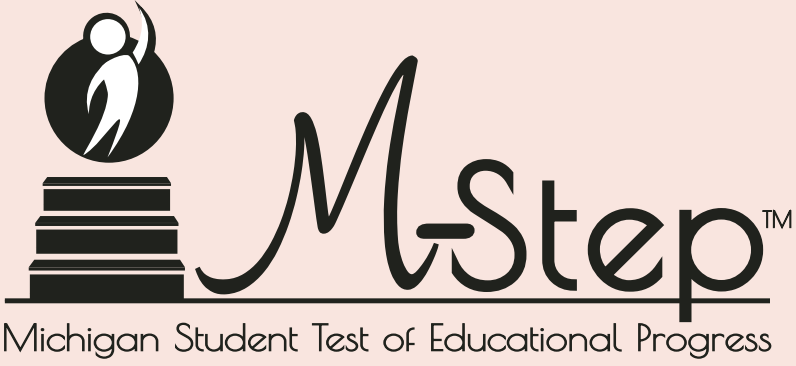


Student Name \_\_\_\_\_



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Sample Items



Grade  
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**MATHEMATICS**



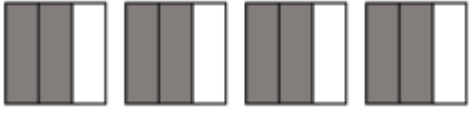

**M-STEP Grade 5 MATHEMATICS Sample**

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1. Which number is equal to  $10^4$ ?

- A. 100
- B. 1,000
- C. 10,000
- D. 100,000

2. Which fraction model best represents  $4 \times \frac{2}{3}$ ?

- A. 
- B. 
- C. 
- D. 

**M-STEP Grade 5 MATHEMATICS Sample**

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3. Conner is buying tickets to a concert. The concert he and his friends want to see costs \$4.75 per ticket. Connor has \$26.00 total.

What is the **greatest** number of tickets Connor can buy?

- A. 4
- B. 5
- C. 6
- D. 7

4. Tyler is 8 years old. His sister Olivia is 4 years less than twice his age. Write a numerical expression for Olivia's age in the box below.

5. Write one number in each box to create a fraction that correctly completes each statement.

A.  $4 \times \frac{\square}{\square} < 4$

B.  $4 \times \frac{\square}{\square} = 4$

C.  $4 \times \frac{\square}{\square} > 4$

**M-STEP Grade 5 MATHEMATICS Sample**

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6. Select two fractions that can be rewritten with a denominator of 24.

A.  $\frac{1}{6}$

B.  $\frac{1}{5}$



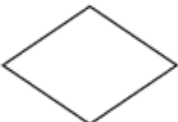
C.  $\frac{5}{7}$

D.  $\frac{9}{10}$

E.  $\frac{1}{9}$

F.  $\frac{7}{8}$

7. All parallelograms have opposite sides that are equal in length and parallel. Determine whether each polygon shown is also a parallelogram. Select Yes or No for each polygon.

	Yes	No
 Rectangle	<input type="checkbox"/>	<input type="checkbox"/>
 Trapezoid	<input type="checkbox"/>	<input type="checkbox"/>
 Rhombus	<input type="checkbox"/>	<input type="checkbox"/>

- 8.** Lola has 4 orange juice containers. Each container is  $\frac{5}{8}$  full. Lola claims to have a total of  $2\frac{1}{2}$  gallons of orange juice in the 4 containers.

Which of these statements must be true in order for Lola's claim to be correct?

- A.** Each container has a capacity of  $\frac{5}{8}$  gallon.
  - B.** Each container has a capacity of 1 gallon.
  - C.** Each container has a capacity of  $2\frac{1}{2}$  gallons.
  - D.** Each container has a capacity of 8 gallons.
- 9.** Ryan has  $\frac{1}{2}$  pound of chocolate. He divides it into 4 equal portions. Write the amount of chocolate, in pounds, in each portion in the box below.

**10.** Select **all** expressions that are equal to  $3\frac{1}{4}$ .

**A.**  $26 \times \frac{1}{8}$

**B.**  $2\frac{1}{8} \times 2$

**C.**  $4 \times 13$

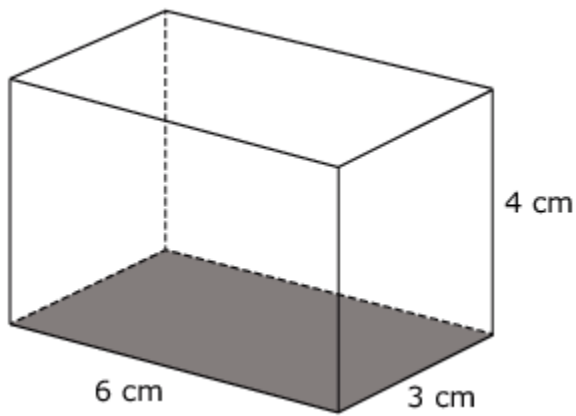
**D.**  $\frac{1}{4} \times 3$

**E.**  $13 \times \frac{1}{4}$

**M-STEP Grade 5 MATHEMATICS Sample**

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- 11.** The right rectangular prism shown has a length of 6 centimeters, width of 3 centimeters, and height of 4 centimeters.



Determine whether each equation can be used to find the volume ( $V$ ) of this prism. Select Yes or No for each equation.

	<b>Yes</b>	<b>No</b>
$V = 18 \times 4$	<input type="checkbox"/>	<input type="checkbox"/>
$V = (6 + 3) \times 4$	<input type="checkbox"/>	<input type="checkbox"/>
$V = 6 \times 3 \times 4$	<input type="checkbox"/>	<input type="checkbox"/>
$V = 9 \times 4$	<input type="checkbox"/>	<input type="checkbox"/>

**Answer Key**

**1.** C

**2.** C

**3.** B

**4.**  $2 \bullet 8 - 4$  or 12

**5.** e.g.,  $\frac{1}{2}$ ,  $\frac{1}{1}$ ,  $\frac{2}{1}$

**6.**  $\frac{1}{6}$ ,  $\frac{7}{8}$

**7.** Yes, No, Yes

**8.** B

**9.**  $\frac{1}{8}$  lb

**10.**  $26 \times \frac{1}{8}$ ,  $13 \times \frac{1}{4}$

**11.** Yes, No, Yes, No



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