Test Administrator Instructions:

This practice test has Subpart 1, Subpart 2, and Subpart 3. There is also an answer document and an answer key at the end of this document. It is recommended that you print one copy of this practice test and pull the answer key before copying and distributing the practice test and answer document to your students.

This practice test is representative of the operational test but is shorter than the actual operational test. To see the details about the operational test, please see the blueprints located on the Tennessee Department of Education website.
Sample Questions

Directions

This Practice Test booklet contains sample items for Grade 3 Math. You may use this test booklet for scratch paper or to make notes, but you must mark your answers on your answer document.

You MAY NOT use a calculator in Subpart 1 of this test booklet.

Sample 1: Selected-Response

1. Three of the expressions below have a value of 12. Mark the three answer choices that have a value of 12 on your answer document.

   A. 2 × 6
   B. 5 × 8
   C. 7 × 2
   D. 4 × 3
   E. 1 × 12

Sample 2: Match

2. Match each fraction on the left with its equivalent fraction on the top row. Mark your answers on your answer document.

<table>
<thead>
<tr>
<th>2/4</th>
<th>2/8</th>
<th>1/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/6</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>1/2</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>1/4</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
1. What is the value of $70 \times 4$?
   Write your answer in the space provided on your answer document.

2. 36 plates were placed into 4 stacks. Each stack had the same number of plates. How many plates were in each stack?
   Write your answer in the space provided on your answer document.

3. Which expression is equal to $2 \times (5 \times 4)$?
   A. $2 + (5 \times 4)$
   B. $(2 \times 5) \times 4$
   C. $(2 \times 5) + (2 \times 4)$
   D. $(5 \times 4) \times (5 \times 2)$

4. Which expression has the same missing number as $45 \div 5 = \square$?
   A. $45 \times 5 = \square$
   B. $45 - 5 = \square$
   C. $5 + \square = 45$
   D. $5 \times \square = 45$
5. What is the value of $8 \times 9$?

   A. 56
   B. 64
   C. 72
   D. 81

6. Linda is covering her table with square tiles.
She has already completed the first row and the first column, as shown.

![Diagram of a table with tiles]

How many tiles will Linda use in all to cover the whole table?
Write your answer in the space provided on your answer document.

7. What is the value of $6 \times 4$?
Write your answer in the space provided on your answer document.
8. Mr. Hill divided his garden into 6 parts. All the parts of his garden have equal areas.

<table>
<thead>
<tr>
<th>beans</th>
<th>flowers</th>
<th>lettuce</th>
</tr>
</thead>
<tbody>
<tr>
<td>tomatoes</td>
<td>flowers</td>
<td>lettuce</td>
</tr>
</tbody>
</table>

What fraction of the total area of the garden is Mr. Hill using for beans?

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

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

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

D. $\frac{6}{1}$
9. Which circle has $\frac{1}{8}$ of its whole area shaded?
10. Nikki’s music lesson begins at 5:30 and ends 45 minutes later.

Place two points on the number line on your answer document to show when Nikki’s lesson begins and ends.
Directions

Subpart 2 of this Practice Test contains sample items for Grade 3 Math. Write all answers on your answer document.

**You MAY use a calculator in Subpart 2 of this test booklet.**

11. Mr. Franklin’s class collected books for the library.

   - Students collected 40 books during the first week.
   - They had 65 total books at the end of the second week.

Complete the picture graph on your answer document to show the numbers of books the class collected during the two weeks.

<table>
<thead>
<tr>
<th>Week</th>
<th>Number of Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td></td>
</tr>
</tbody>
</table>

**Key**

- Book symbol = 10 Books
12. Using the grid on your answer document, shade a rectangle that has an area of 10 square units.

13. Place a check mark in the boxes in the table on your answer document to match each number with the correct statement.

Some numbers may have more than one matching statement. Some numbers may have no matching statements.

<table>
<thead>
<tr>
<th></th>
<th>rounds to 300 when rounded to the nearest 10</th>
<th>rounds to 300 when rounded to the nearest 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>347</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>309</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>351</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
14. Which fraction does point A show?

A. \( \frac{3}{4} \)

B. \( \frac{3}{2} \)

C. \( \frac{2}{4} \)

D. \( \frac{2}{2} \)
15. Place one of the symbols below into each box on your answer document to correctly compare the fractions.

\[
\begin{array}{ccc}
< & > & = \\
\frac{3}{1} & \square & \frac{3}{6} \\
\frac{2}{8} & \square & \frac{4}{8}
\end{array}
\]

16. Three classes collected bottles to recycle.

The table shows the number of bottles collected by two classes.

<table>
<thead>
<tr>
<th>Class</th>
<th>Bottles Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs. Rand</td>
<td>109</td>
</tr>
<tr>
<td>Mr. Snow</td>
<td>126</td>
</tr>
<tr>
<td>Ms. Chow</td>
<td>?</td>
</tr>
</tbody>
</table>

The three classes collected 394 bottles altogether.

How many bottles did Ms. Chow’s class collect?

Write your answer in the space provided on your answer document.
17. Carly was shading numbers that follow a pattern before her paper ripped.

Mark the answer in each box on your answer document that shows the pattern for the shaded numbers on Carly’s paper.

○  add
○  multiply by

2  4  8  16

18. Brandon’s swim practice began at 3:15 P.M. It ended at the time shown by the arrow.

How many minutes did Brandon spend at swim practice?

Write your answer in the space provided on your answer document.
19. The graph shows three ways the students in David’s class get to school.

How many more students ride the bus than ride in a car and walk combined?

A. 2  
B. 5  
C. 13  
D. 28

20. The figure shown has a perimeter of 45 inches.

What is the unknown length, in inches? Write your answer in the space provided on your answer document.
21. Ms. Karmen’s art class is making a banner. The perimeter of the banner is 30 feet.

What is the height of the banner?

A. 21 ft
B. 18 ft
C. 12 ft
D. 6 ft
Directions

Subpart 3 of this Practice Test contains sample items for Grade 3 Math. Write all answers on your answer document.

You MAY use a calculator in Subpart 3 of this test booklet.

22. Mark has 45 cards.

He stacks the cards in 9 piles.

Each pile has the same number of cards.

Select all the equations that can be solved to show how many cards, \( c \), are in each pile.

A. \( 5 \times c = 45 \)
B. \( 9 \times c = 45 \)
C. \( 9 \times 5 = c \)
D. \( 45 \div 5 = c \)
E. \( 45 \div 9 = c \)

23. Evan has two boxes of cookies.

- The first box has 12 cookies.
- The second box has 24 cookies.

He shares all the cookies equally with 9 people.

How many cookies does Evan give each person?

A. 3 cookies
B. 4 cookies
C. 6 cookies
D. 9 cookies

He returned home at the time shown on the clock.

For how many minutes was Jason out of the house?
Write your answer in the space provided on your answer document.

25. Match each fraction on the left with its equivalent fraction on the top row. Mark your answers on your answer document.
26. Jasmine has 20 marbles.
   • She places the marbles in 4 groups.
   • Each group has the same number of marbles.
   Which expression is the number of marbles in each group?
   A. 4 + 20
   B. 4 ÷ 20
   C. 20 – 4
   D. 20 ÷ 4

27. The rectangle has 1 square tile on it, as shown.
   • The tile has a side length of 1 unit.
   • The rectangle can be completely covered with 2 rows of 4 tiles.
   What is the area, in square units, of the rectangle?
   A. 1
   B. 4
   C. 6
   D. 8
28. A scale is shown.

![Image of a balance scale with a cylinder on one side weighing 397g and a cube on the other side weighing 621g.]

How much greater, in grams, is the mass of the cube than the mass of the cylinder? Write your answer in the space provided on your answer document.

29. Refer to the number line below.

```
0   |   |   |   |   | 1
```

**Part A**
Divide the number line into sixths on your answer document.

**Part B**
Place a point at $\frac{2}{6}$ on your answer document.
30. The art club has 9 students. They have 72 markers to share equally. Which number sentence can be solved to find how many markers each student will have?

A. 9 + □ = 72
B. 9 × □ = 72
C. 72 − 9 = □
D. 72 × 9 = □

31. What is the area of this figure?

A. 1 square centimeter
B. 2 square centimeters
C. 11 square centimeters
D. 20 square centimeters

STOP

This is the end of the test.
This page is intentionally left blank.
Name: ____________________________________

Subpart 1 Sample Questions

1.  A  B  C  D  E

2.   
    
    \[
    \begin{array}{ccc}
    \frac{2}{4} & \frac{2}{8} & \frac{1}{3} \\
    \frac{2}{6} & \circ & \circ & \circ \\
    \frac{1}{2} & \circ & \circ & \circ \\
    \frac{1}{4} & \circ & \circ & \circ \\
    \end{array}
    \]

Subpart 1 Practice Test Questions

1. 

2. 

3.  A  B  C  D  

4.  A  B  C  D  

5.  A  B  C  D  

6. 

7. 
### Subpart 2 Practice Test Questions

#### 11.

<table>
<thead>
<tr>
<th>Week</th>
<th>Number of Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td></td>
</tr>
</tbody>
</table>

**Key**

- 10 Books

#### 12.

**Key**

- 1 Square Unit
13. |   | rounds to 300 when rounded to | rounds to 300 when rounded to |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>the nearest 10</td>
<td>the nearest 100</td>
</tr>
<tr>
<td>301</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>347</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>309</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>351</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

14. A B C D

15. \[
\begin{array}{cc}
3 & \frac{3}{6} \\
1 & \frac{2}{8} \quad \frac{4}{8}
\end{array}
\]

16.  

17.  

18.  

19. A B C D

20.  

21. A B C D
Subpart 3 Practice Test Questions

22. A B C D E

23. A B C D

24. 

25. 

<table>
<thead>
<tr>
<th></th>
<th>3/4</th>
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<th>2/3</th>
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<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>4/6</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

26. A B C D

27. A B C D

28. 

29. 

30. A B C D

31. A B C D
Subpart 1 Sample Questions

1. ☐ ☐ ☐ ☐ ☐

2.

<table>
<thead>
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</tr>
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<tbody>
<tr>
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<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>1/2</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>1/4</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Subpart 1 Practice Test Questions

1. 280
2. 9
3. A ☐ ☐ ☐
4. A ☐ ☐ ☐
5. A ☐ ☐ ☐
6. 63
7. 24
8. A ☐ ☐ ☐
9. A ☐ ☐ ☐
10. [Timetable diagram]

27
Subpart 2 Practice Test Questions

11. Week | Number of Books
---|---
Week 1 |  |
Week 2 |  |

**Key**

- = 10 Books

12. *Any of the examples above are acceptable. Answers will vary.*
13. |   | rounds to 300 when rounded to the nearest 10 | rounds to 300 when rounded to the nearest 100 |
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<td>309</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>351</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. ● ○ ○ ○

15. \[
\begin{array}{c}
\frac{3}{1} > \frac{3}{6} \\
\frac{2}{8} = \frac{4}{8}
\end{array}
\]

16. 159

17. ● add
○ multiply by

18. 45

19. ● ○ ○ ○

20. 20

21. ○ ○ ○ ●
Subpart 3 Practice Test Questions

22. A ● ○ ○ ○ ●

23. A ● ○ ○

24. 45

25.

<table>
<thead>
<tr>
<th></th>
<th>3/4</th>
<th>1/2</th>
<th>2/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/4</td>
<td>●</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>6/8</td>
<td>●</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4/6</td>
<td>○</td>
<td>○</td>
<td>●</td>
</tr>
</tbody>
</table>

26. A ○ ○ ○ ●

27. A ○ ○ ○ ●

28. 224

29. 0 1

30. A ● ○ ○ ○

31. A ○ ○ ○ ●