Ohio’s State Tests

RELEASED ITEMS
PAPER TEST BOOKLET

LARGE PRINT

SPRING 2018

GRADE 3
MATHEMATICS
Directions for Completing the Response Grids

1. Work the problem, and find an answer.

2. Write your answer in the answer boxes at the top of the grid in the Student Test Booklet.
   • Write only one digit or symbol in each answer box.
   • Be sure to write a decimal point or fraction bar in the answer box if it is a part of the answer.

3. Fill in a bubble under each box in which you wrote your answer in the Student Test Booklet.
   • Fill in one and ONLY one bubble for each answer box. Do NOT fill in a bubble under an unused answer box.
   • Fill in each bubble by making a solid mark that completely fills the circle.
   • You MUST fill in the bubbles accurately to receive credit for your answer.
You can record a mixed number in several different ways. You can write it as:

<table>
<thead>
<tr>
<th>a. A whole number and a fraction (5 1/2). Be sure to include a space between the whole number and the fraction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
</tr>
<tr>
<td>b. An equivalent fraction (11/2)</td>
</tr>
<tr>
<td>1 1/2</td>
</tr>
<tr>
<td>c. An equivalent decimal (5.5)</td>
</tr>
<tr>
<td>5 . 5</td>
</tr>
</tbody>
</table>
NOTE: The question numbers in this Released Items Paper Test Booklet match the question numbers in the corresponding Item Release Scoring Guide available on the portal and the item numbers in the Item Level Report in the Online Reporting System.

Directions:

1. Read each question carefully. Think about what is being asked. Look carefully at graphs or diagrams because they will help you understand the question. Then, choose or write the answer you think is best.

2. Use only a #2 pencil to answer questions on this test.

3. For questions with bubbled responses, fill in the circle next to your answer choice. If you change your answer, make sure you erase your old answer completely. Do not cross out or make any marks on the other choices.

4. For questions with response boxes, write your answer neatly, clearly and only in the space provided. Answers written outside of the space provided will not be scored.

5. If you do not know the answer to a question, skip it and go on to the next question. If you have time, go back to the questions you skipped and try to answer them before turning in your Student Test Booklet.

6. Check over your work when you are finished.
1. A rectangle is shown.

\[
\text{\textsquare} = 1 \text{ square meter}
\]

What is the area, in square meters, of the rectangle?
9. Ryan wrote a number on his paper.

- His number rounds to 350 when rounded to the nearest ten.
- His number rounds to 300 when rounded to the nearest hundred.

Enter a number that Ryan could have written.
11. The art teacher has 74 brushes. One art class uses 26 brushes. The rest of the brushes are put into 8 boxes. Each box has the same number of brushes.

How many brushes are in each box?

A 6
B 9
C 40
D 48
13. This item has two parts.

Vince wants to find a fraction that is equivalent to $\frac{2}{4}$. He creates the first model, as shown.

**Part A.** Shade parts of the second model so that the two models represent equal fractions.
Part B. Based on the second model, what fraction is equivalent to $\frac{2}{4}$?
16. Carl creates a rectangle with an area of 12 square units and a perimeter of 14 units.

A. In the top box, draw a rectangle with
   • the same area as Carl’s rectangle, but
   • a different perimeter.

B. In the bottom box, draw a rectangle with
   • the same perimeter as Carl’s rectangle, but
   • a different area.
19. Several number lines are shown.

A. Circle the number line that can best be used to plot $\frac{7}{6}$.

B. Draw a point on the number line you circled to correctly plot $\frac{7}{6}$. 

A.

B. $\frac{7}{6}$
21. A student is comparing the mass of four bananas to the mass of four apples.

What is the difference in mass, in grams (g), between the bananas and the apples?

A 200 g
B 500 g
C 700 g
D 1,200 g
22. What is the quotient of $48 \div 6$?
24. A shape is divided into equal parts as shown.

Enter a fraction that represents the shaded area of the shape.
25. Which expression is equivalent to $3 \times 7$?

A  $3 + (3 \times 4)$

B  $3 \times (3 \times 4)$

C  $(3 \times 3) + (3 \times 4)$

D  $(3 \times 3) + (4 \times 4)$
29. The number of classes and the number of students in each class at Mountain Elementary School are shown. Complete the table to show the total number of students in each grade.

<table>
<thead>
<tr>
<th>Kindergarten</th>
<th>Number of Classes</th>
<th>Number of Students in Each Class</th>
<th>Total Number of Students in Each Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>First Grade</td>
<td>2</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Second Grade</td>
<td>4</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Third Grade</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>
32. A rectangle has a width of 6 feet and an area of 48 square feet.

What is the length, in feet, of the rectangle?
34. Miss Lewis teaches 3 dance classes. There are 9 students in each class.

How many students does Miss Lewis teach?
35. Mr. Burrows starts mowing the lawn at 12:05 p.m. He also does the following:

- He stops to eat lunch 45 minutes after he starts mowing the lawn.
- After lunch, he mows the lawn for 35 more minutes.
- He finishes mowing the lawn at 1:45 p.m.

A. What time does Mr. Burrows begin eating lunch?

B. How long, in minutes, did it take him to eat lunch?

<table>
<thead>
<tr>
<th>A.</th>
<th>:</th>
<th>p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.</td>
<td>minutes</td>
<td></td>
</tr>
</tbody>
</table>
Go to the next page
40. Yang has an apple tree. He records how many apples he picks each day in the table shown.

### Number of Apples Picked

<table>
<thead>
<tr>
<th>Day</th>
<th>Picked Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td></td>
</tr>
</tbody>
</table>

Go to the next page
Create a picture graph to represent the data.

A. Circle a number for the scale of the picture graph.

B. Shade full or half apples in each row to create the picture graph.

- There may be more than one correct answer.

### A.

Select a scale for the graph.

2 3 4

### B.

Number of Apples Picked

<table>
<thead>
<tr>
<th>Day</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td><img src="image1" alt="Apples" /></td>
<td><img src="image2" alt="Apples" /></td>
<td><img src="image3" alt="Apples" /></td>
<td><img src="image4" alt="Apples" /></td>
<td><img src="image5" alt="Apples" /></td>
</tr>
<tr>
<td>Tuesday</td>
<td><img src="image6" alt="Apples" /></td>
<td><img src="image7" alt="Apples" /></td>
<td><img src="image8" alt="Apples" /></td>
<td><img src="image9" alt="Apples" /></td>
<td><img src="image10" alt="Apples" /></td>
</tr>
<tr>
<td>Wednesday</td>
<td><img src="image11" alt="Apples" /></td>
<td><img src="image12" alt="Apples" /></td>
<td><img src="image13" alt="Apples" /></td>
<td><img src="image14" alt="Apples" /></td>
<td><img src="image15" alt="Apples" /></td>
</tr>
<tr>
<td>Thursday</td>
<td><img src="image16" alt="Apples" /></td>
<td><img src="image17" alt="Apples" /></td>
<td><img src="image18" alt="Apples" /></td>
<td><img src="image19" alt="Apples" /></td>
<td><img src="image20" alt="Apples" /></td>
</tr>
<tr>
<td>Friday</td>
<td><img src="image21" alt="Apples" /></td>
<td><img src="image22" alt="Apples" /></td>
<td><img src="image23" alt="Apples" /></td>
<td><img src="image24" alt="Apples" /></td>
<td><img src="image25" alt="Apples" /></td>
</tr>
</tbody>
</table>
42. Mrs. Tate arranges 24 desks into rows. Each row has the same number of desks.

Complete the table to show one way that Mrs. Tate could arrange all of the desks into rows.

<table>
<thead>
<tr>
<th>Number of Rows</th>
<th>Number of Desks in Each Row</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STOP