



THIRD SPACE
LEARNING

3rd Grade Ohio State Practice Math Test

Ohio Practice Test Grade 3

Grade 3

Questions

Name: Class:

Date: Score:

Short answer and multiple choice.

Standard: 3.OA.3
DOK 1

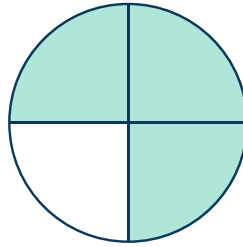
- 1
- Johanna has 24 books and 3 shelves to put them on. If she puts an equal number of books on each shelf, how many books will there be on each shelf?

Answer:.....

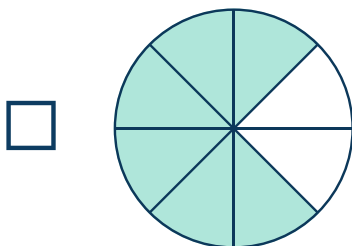
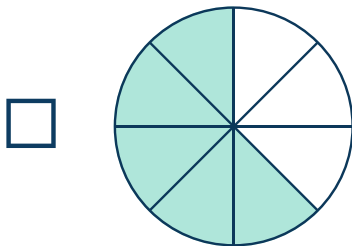
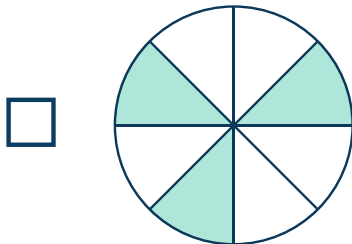
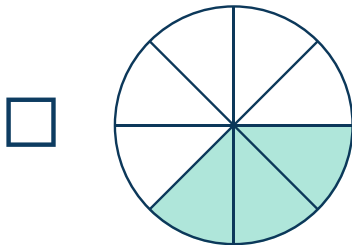
Standard: 3.NF.3.b

DOK 1

- 2 Gina has $\frac{3}{4}$ of a whole fraction model which is pictured below.



Which model is shaded to represent an equivalent fraction to the model above?



Standard: 3.NF.3.d

DOK 2

- 3 What is a number that will make the comparison true?

$$\frac{1}{?} < \frac{1}{3}$$

Answer: _____

Standard: 3.NBT.1

DOK 2

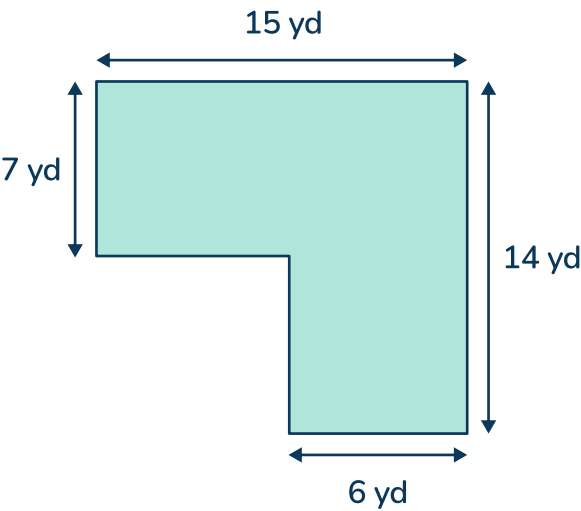
- 4 Select all the numbers that when rounded to the nearest hundred, round to be 600.

- ☐ 607
- ☐ 617
- ☐ 653
- ☐ 640
- ☐ 661

Standard: 3.MD.7.d

DOK 2

- 5 Julie moved into a new house. The diagram below shows the shape of her new room.



What is the area of Julie’s new room in square yards?

Answer:_____

Standard: 3.OA.4

DOK 1

- 6 Complete the table below.

24	÷		=	8
8	×	9	=	
56	÷	7	=	
	×	6	=	54

Standard: 3.MD.6

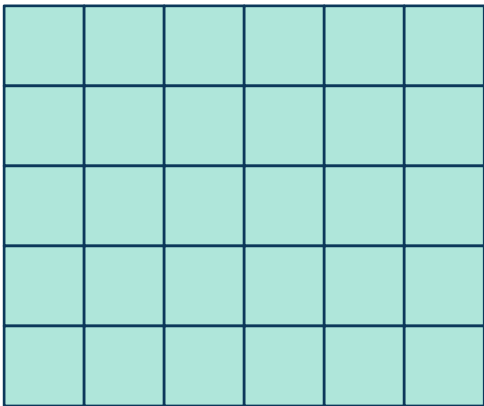
DOK 2

7 The diagram below shows the floor plan of Lindsay’s bedroom.



Represents 1 square foot.

What is the area of Lindsay’s bedroom in square feet?



Answer:_____

Standard: 3.MD.1.a

DOK 2

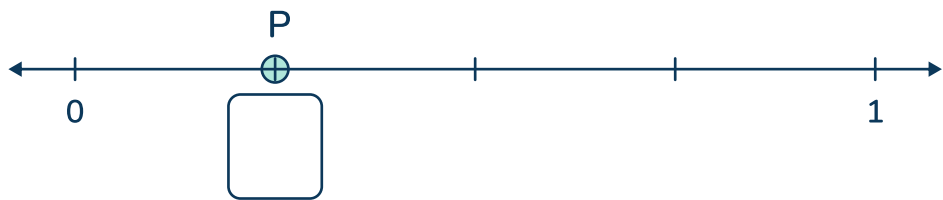
8 Dillion walks to school. He leaves his house at 7:15 AM and he arrives at school at 7:40 AM. How many minutes does it take him to walk to school?

Answer:_____

Standard: 3.NF.2.a

DOK 2

9 Which fraction is represented by point P on the number line shown below?

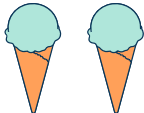





Standard: 3.MD.3

DOK 2

10 The graph below shows the flavors of ice cream cones sold in an hour at the Lighthouse Ice Cream Shop.



Chocolate	
Vanilla	
Honeycomb	
Strawberry	

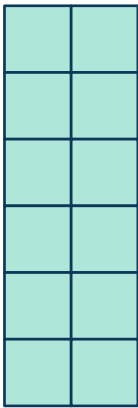
How many honeycomb ice creams were sold?


Answer:_____

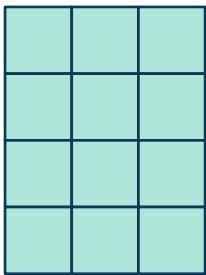
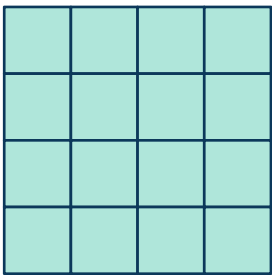
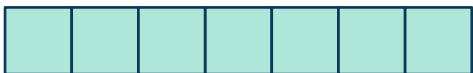
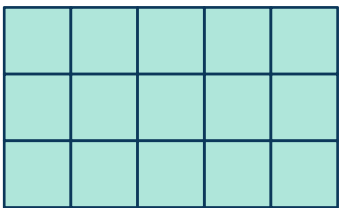
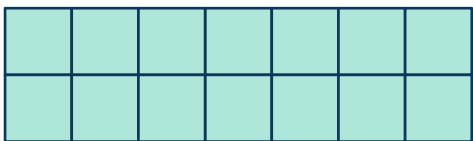
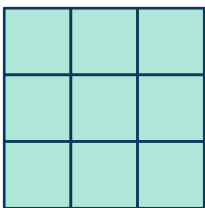
Standard:3.MD.8

DOK 3

11 Select the figure that has the same perimeter as



If  = 1 square unit

☐☐☐☐☐☐

Standard: 3.OA.3

DOK 2

- 12** Lillian Elementary School reserved 3 coaches for the 5th grade school trip. Each of the buses holds 50 students. If the coaches are completely filled, how many students are going on the trip?

Answer: _____

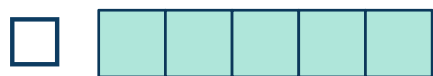
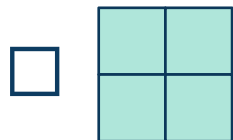
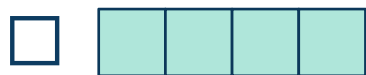
Standard: 3.G.2

DOK 2

- 13** The square below represents $\frac{1}{4}$ of a whole.



Select the shapes that represent one whole.



Standard: 3.NBT.2

DOK 1

- 14** Find the difference:

$$2,467 - 1706 = ?$$

Standard: 3.MD.1.a

DOK 2

- 15** Ty arrives at his friend's house at 2:45 PM.
He stays for 30 minutes.
What time did Ty leave his friend's house?

Standard: 3.NF.3.d

DOK 2

- 16** Create a fraction that is greater than $\frac{3}{8}$ and less than $\frac{3}{4}$.

Answer:_____

Standard: 3.NBT.2

DOK 1

- 17** What is the value of the expression $905 + 327$?

Standard: 3.OA.5

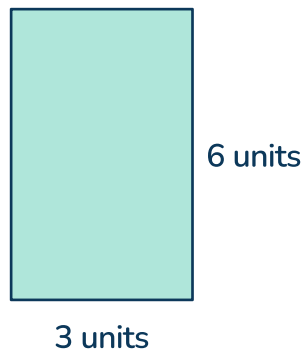
DOK 1

- 18** Create a related multiplication equation using the same numbers as the equation $42 \div 7 = 6$

Standard: 3.MD.7.b

DOK 2

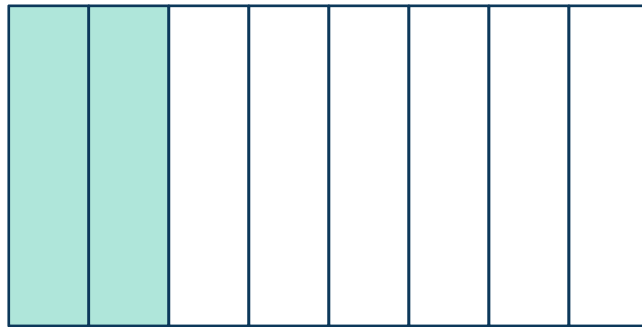
- 19** Kellie draws a rectangle in her notebook. She labels two of the sides as 3 units and the other two sides as 6 units. What is the area of the rectangle she drew?



Standard: 3.NF.3.b

DOK 2

- 20 Angela had a rectangle with 8 equal parts. She shaded 2 of them. Select the fractions that could represent the picture.



☐ $\frac{2}{8}$

☐ $\frac{3}{8}$

☐ $\frac{1}{3}$

☐ $\frac{1}{4}$

☐ $\frac{2}{10}$

Standard: 3.OA.7

DOK 3

- 21** Xavier has 45 lollipops. He gives all of the lollipops to 5 friends. If each friend gets the same number of lollipops, how many lollipops does each friend get?

Answer:_____

Standard: 3.NF.2.b

DOK 2

- 22** Place the numbers 0, $\frac{5}{8}$, and 1 on the number line.



Standard: 3.OA.8

DOK 3

23 Devin has 7 boxes of ping pong balls with 12 balls in each box. Devin gave 22 ping pong balls to her cousin.

A. Write an equation to represent the number of ping pong balls, b , that Devin has left.

Answer:_____

B. Solve for the amount of ping pong balls that Devin has left.

Answer:_____

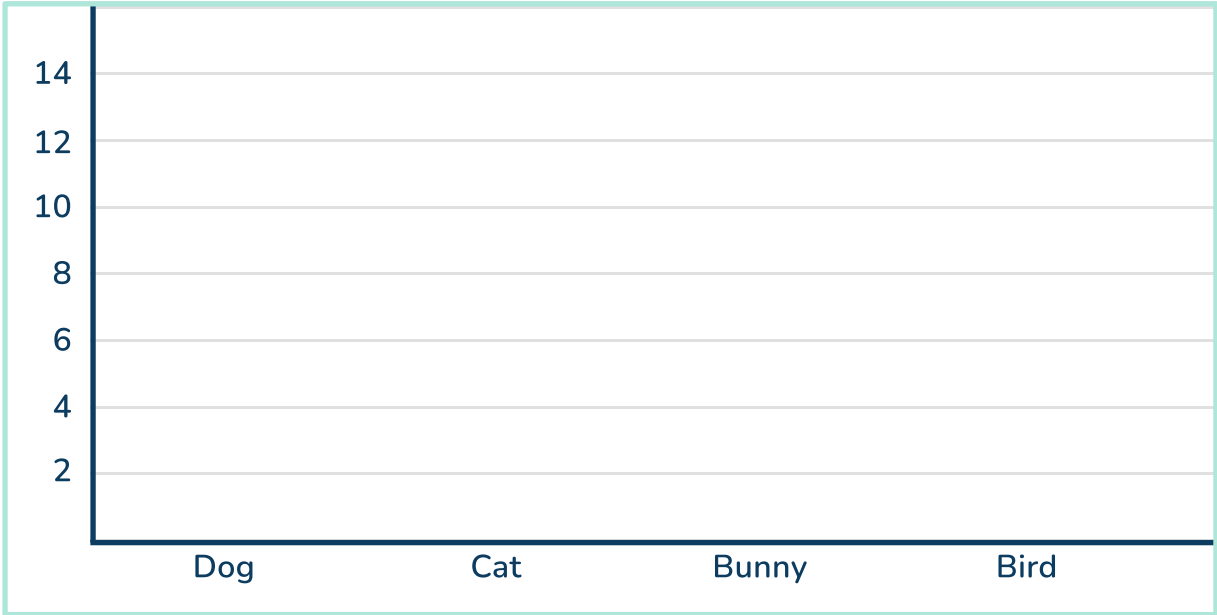
Standard: 3.MD.3

DOK 3

24 The table below represents the results of a survey taken in a second grade class about the types of pets they have.

Type of Pet	Tally
Dog	12
Cat	7
Bunny	8
Bird	3

A. Create a bar graph that represents the results of the survey.



B. How many more students have a dog than a bird?

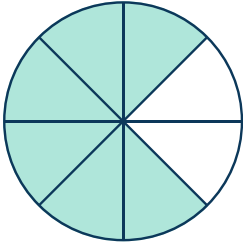
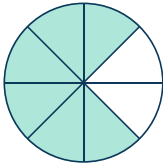
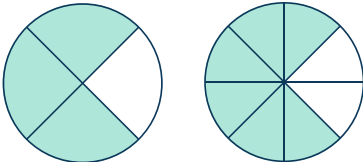
Answer:_____

C. How many students responded to the survey?

Answer:_____

Rationales

Item	KEY	Rationale
1		$24 \div 3 = 8$, 8 books per shelf

Item	KEY	Rationale
2		<p>This fraction model represents 6 shaded parts out of 8 equal parts which is $\frac{6}{8}$</p> <p></p> <p>$\frac{6 \div 2}{8 \div 2} = \frac{3}{4}$ because if you divide the numerator and the denominator by 2 it will be equal to $\frac{3}{4}$. Also, looking at the models you can see that the same area is shaded in.</p> <p></p>

Item	KEY	Rationale
3	Possible numbers 4, 5, 6, 7, 8, 9,	$\frac{1}{4} < \frac{1}{3}$ OR $\frac{1}{5} < \frac{1}{3}$ OR $\frac{1}{6} < \frac{1}{3}$

Ohio State Practice Math Test | Grade 3 | Rationales

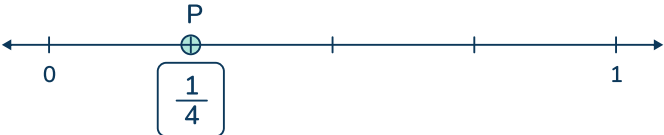
Item	KEY	Rationale
4	607, 617, 640	<p>607 rounded to the nearest hundred is 600 because the tens digit is 0 which means to round down.</p> <p>617 rounded to the nearest hundred is 600 because the tens digit is 1 which means to round down.</p> <p>640 rounded to the nearest hundred is 600 because the tens digit is 4 which means to round down.</p>













Item	KEY	Rationale
5	147 yd^2	$15 \times 7 = 105$ $6 \times 7 = 42$ $105 + 42 = 147$



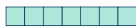
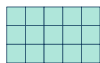
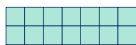

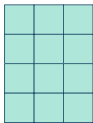
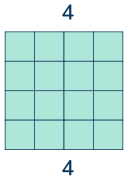
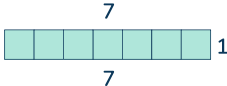
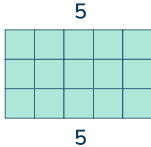
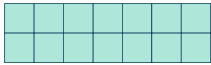

Item	KEY	Rationale
6	First row missing number: 3 Second row missing number: 72 Third row missing number: 8 Fourth row missing number: 9	$24 \div 3 = 8$ $8 \times 9 = 72$ $56 \div 7 = 8$ $9 \times 6 = 54$

Item	KEY	Rationale
7	30 square feet	Counting up all the small squares, there are 30 of them. So, the area is 30 square feet.

Item	KEY	Rationale
8	25 minutes	<p>7:15 AM to 7:40 AM is 25 minutes.</p> <p>You can count in 5 minute intervals from 7:15 to 7:50 OR</p> <p>You can subtract $7:40 - 7:15 = 25$ minutes</p>

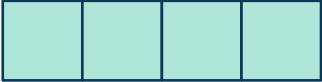
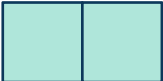
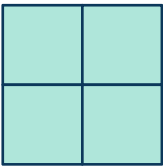


Item	KEY	Rationale
9	$\frac{1}{4}$	<p>The number line is divided into 4 equal parts. So, point P represents $\frac{1}{4}$</p> 

Item	KEY	Rationale								
10	5	<p>There are 2 and a half cones represented for Honeycomb.</p> <p>If each cone symbol represents 2 cones sold, then $2\frac{1}{2} \times 2 = 5$</p> <p>OR you can count each cone</p> <table><tr><td>Chocolate</td><td></td></tr><tr><td>Vanilla</td><td></td></tr><tr><td>Honeycomb</td><td></td></tr><tr><td>Strawberry</td><td></td></tr></table> <p>1 + 2 + 2 = 5</p>	Chocolate		Vanilla		Honeycomb		Strawberry	
Chocolate										
Vanilla										
Honeycomb										
Strawberry										

Item	KEY	Rationale
11	<div><input type="checkbox"/> </div> <div><input checked="" type="checkbox"/> </div> <div><input checked="" type="checkbox"/> </div> <div><input checked="" type="checkbox"/> </div> <div><input type="checkbox"/> </div> <div><input type="checkbox"/> </div>	<div><input type="checkbox"/> </div> <div><input checked="" type="checkbox"/>  $4 + 4 + 4 + 4 = 16$</div> <div><input checked="" type="checkbox"/>  $1 + 1 + 7 + 7 = 16$</div> <div><input checked="" type="checkbox"/>  $5 + 5 + 3 + 3 = 16$</div> <div><input type="checkbox"/> </div> <div><input type="checkbox"/> </div>

Ohio State Practice Math Test | Grade 3 | Rationales

Item	KEY	Rationale
12	150 students	$3 \times 50 = 150$

Item	KEY	Rationale
13	The two that should be selected are the first one and the third one.	<div><input checked="" type="checkbox"/> </div> <div><input type="checkbox"/> </div> <div><input checked="" type="checkbox"/> </div> <div><input type="checkbox"/> </div> <div><input type="checkbox"/> </div>

Item	KEY	Rationale
14	761	Using regrouping strategies $2467 - 1706 = 761$

Item	KEY	Rationale
15	3:15 PM	<p>2:45 PM plus 30 minutes is 3:15 PM.</p> <p>You can count in intervals of 5 minutes using a clock.</p> <p>OR</p> <p>You can add 30 minutes to 2:45 PM.</p>

Ohio State Practice Math Test | Grade 3 | Rationales

Item	KEY	Rationale
16	$\frac{4}{8} = \frac{1}{2}$ or $\frac{5}{8}$	$\frac{3}{4} = \frac{6}{8}$, so $\frac{4}{8} = \frac{1}{2}$ and $\frac{5}{8}$ are possible answers that are greater than $\frac{3}{8}$ and less than $\frac{3}{4}$.

Item	KEY	Rationale
17	1232	Using regrouping strategies $905 + 327 = 1232$


Item	KEY	Rationale
18	$6 \times 7 = 42$ OR $7 \times 6 = 42$	Creating a related multiplication equation to $42 \div 7 = 6$ means to use those same numbers to make a multiplication equation instead of division. Using the numbers 6, 7, and 42 the multiplication related equations can be $7 \times 6 = 42$ OR $6 \times 7 = 42$.

Item	KEY	Rationale
19	18 <i>units</i> ²	Area = base x height Area = 3×6 Area = 18 <i>units</i> ²

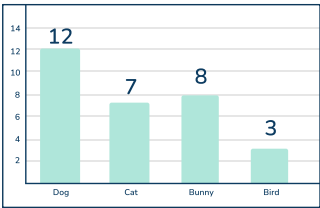
Item	KEY	Rationale
20	$\frac{2}{8}$ and $\frac{1}{4}$	Two out of 8 or 1 out of 4 is shaded. So, $\frac{2}{8} = \frac{1}{4}$.

Item	KEY	Rationale
21	9 lollipops	$45 \div 5 = 9$, each friend gets 9 lollipops.

Ohio State Practice Math Test | Grade 3 | Rationales

Item	KEY	Rationale
22	See Rationale	




Item	KEY	Rationale
23. A.	$7 \times 12 - 22 = b$	7 times 12 balls in each box minus the 22 she gave away.
23. B.	62	$7 \times 12 = 84$ $84 - 22 = 62$ Devin has 62 ping pong balls left.

Item	KEY	Rationale
24 A.		Creating a bar graph to represent data in the survey. There are 30 student responses, 12 for dog, 7 for cat, 8 for bunny and 3 for bird.
24. B.	9 more students	$12 - 3 = 9$
24. C.	30	$12 + 7 + 8 + 3 = 30$

Breakdown of Assessment				
Operations and Algebraic thinking (OA)	Number and Operations in Base Ten (NBT)	Number and Operations - Fractions (NF)	Measurement and Data (MD)	Geometry (G)
This Assessment: 24%	This Assessment: 12%	This Assessment: 28%	This Assessment: 32%	This Assessment: 4%

Do you have a group of students who need a boost in math?

Each student could receive personalized lessons every week from our specialist one-on-one math tutors.




-  Differentiated instruction for each student
-  Aligned to your state's standards
-  Scaffolded learning to close gaps

“We just had our first session and it went great! The kids really liked it and felt like they were learning! One even said he finally felt like math was making sense.”



Michelle Craig, Instructional Coach,
Sherwood Forest Elementary, Washington

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