THIRD SPACE LEARNING

4th Grade Indiana State Practice Math Test

Indiana Practice Test Grade 4

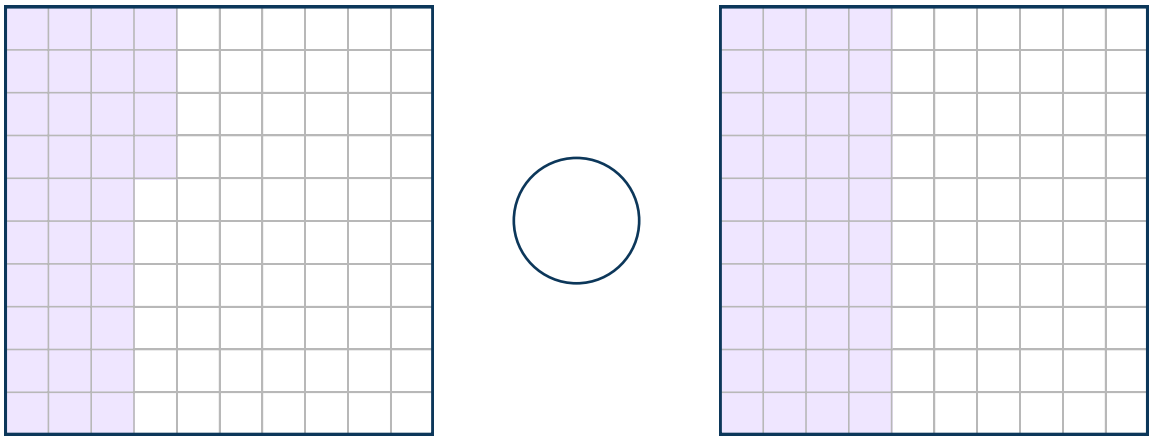
Grade 4

Questions

Name: ..... Class: .....

Date: ..... Score: .....

1 Which of the following statements correctly compares the two decimals below?



A. $0.34 > 0.4$
B. $0.04 < 0.34$
C. $0.4 > 0.34$
D. $34 < 4$

2 Samual is baking cookies with his grandmother. They baked 6 times as many chocolate chip cookies as sugar cookies. If there are 72 chocolate chip cookies, how many sugar cookies are there?

A. 432 sugar cookies
B. 12 sugar cookies
C. 66 sugar cookies
D. 78 sugar cookies

3 Using the following rectangular array, Cassie solves 44 x 16.

400	40
?	24

What missing number will complete Cassie's array?

A. 12
B. 46
C. 135
D. 240

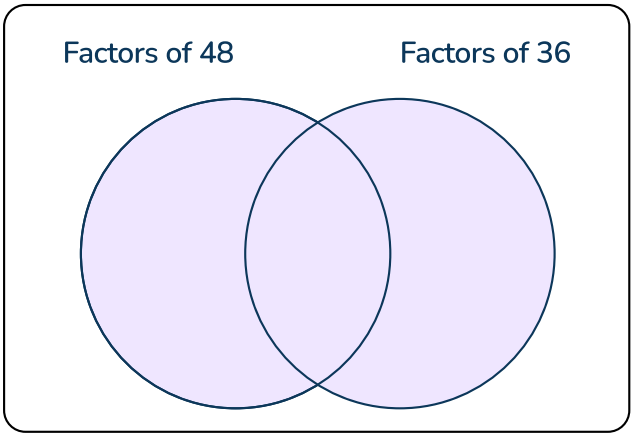
4 Which set of numbers are all multiples of 11?

A. 33, 44, 56, 66
B. 1, 11, 22, 33
C. 1, 11
D. 11, 22, 33, 44

5 Tamera feeds the ducks at her local park. She has 27 pounds of birdseed. Tamera feeds the ducks in servings of ounces. How many ounces of birdseed does Tamera have?
(1 pound = 16 ounces)

A. 43 ounces
B. 11 ounces
C. 432 ounces
D. 427 ounces

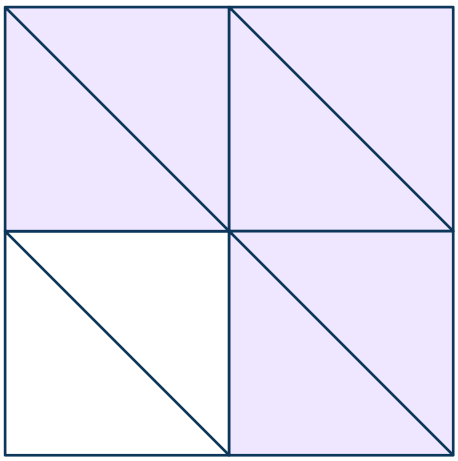
6 Examine the Venn diagram.



What is the greatest number that belongs in the middle of the Venn diagram?

A. 12
B. 1
C. 9
D. 4

7 Phillip had a square with 8 equal parts. He shaded 6 of them. Which fractions do Phillip's square show are equal?



A. $\frac{1}{8} = \frac{1}{6}$

B. $\frac{6}{8} = \frac{3}{4}$

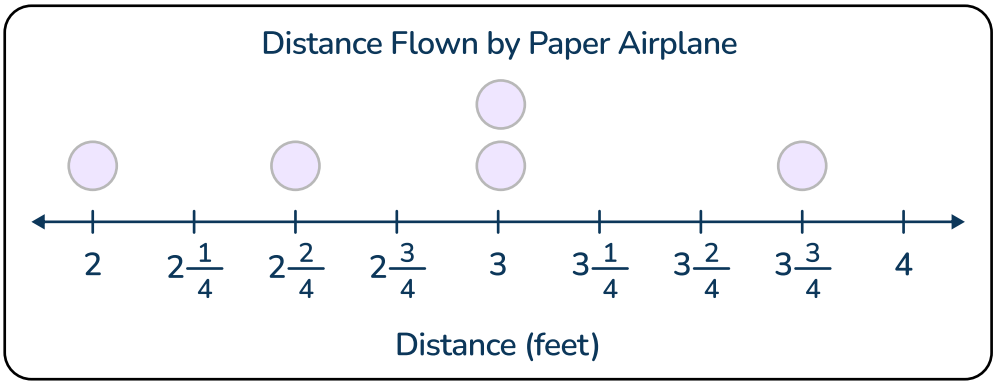
C. $\frac{6}{8} = \frac{1}{2}$

D. $\frac{1}{8} = \frac{1}{2}$

8 Noah makes and sells homemade soaps. She is putting them into boxes. She places 8 bars of soap in each box. How many boxes does she need for 520 bars of soap?

A. 37
B. 69
C. 65
D. 70

9 The line plot shows all the distances that Alex threw his paper airplane during a science experiment.



What was the total distance flown by the paper airplane during Alex's science experiment?

A. $14\frac{1}{4}$ feet

B. 14 feet

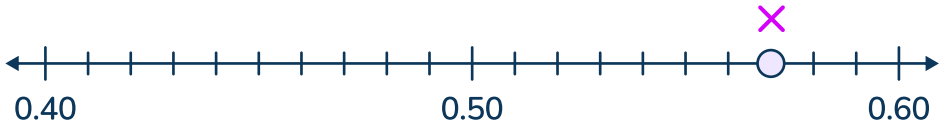
C. $12\frac{1}{2}$ feet

D. $12\frac{3}{4}$ feet

10 Which of the following numbers round to 700 when rounded to the nearest hundred? Select all that apply.

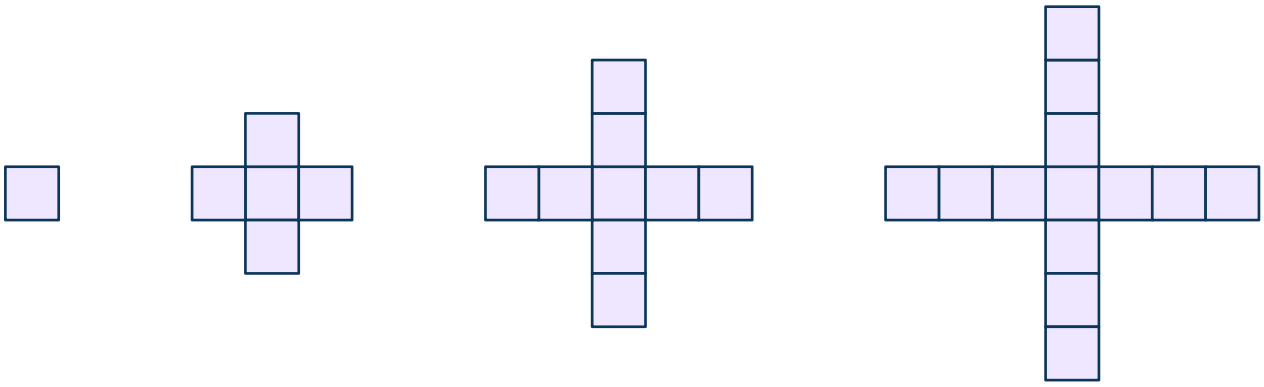
A. 745
B. 787
C. 646
D. 785
E. 651

11 What is the value of point X on the number line below?



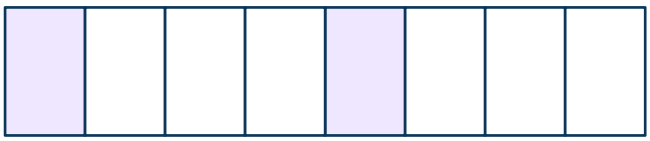
A. 0.44
B. 0.57
C. 0.53
D. 0.63

12 Look at the pattern of figures below. If the pattern continues, how many squares will make up the 7th figure?

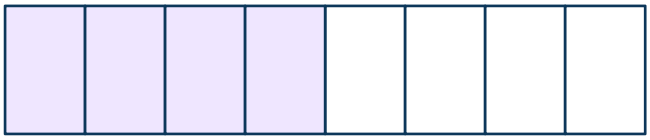


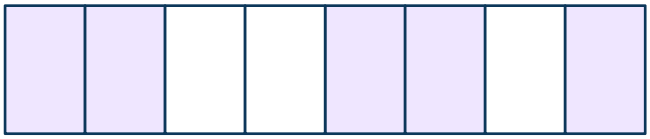
A. 13
B. 17
C. 21
D. 25

13 The shapes are divided into equal parts. Which shape is $\frac{1}{4}$ shaded?

A. 

B. 

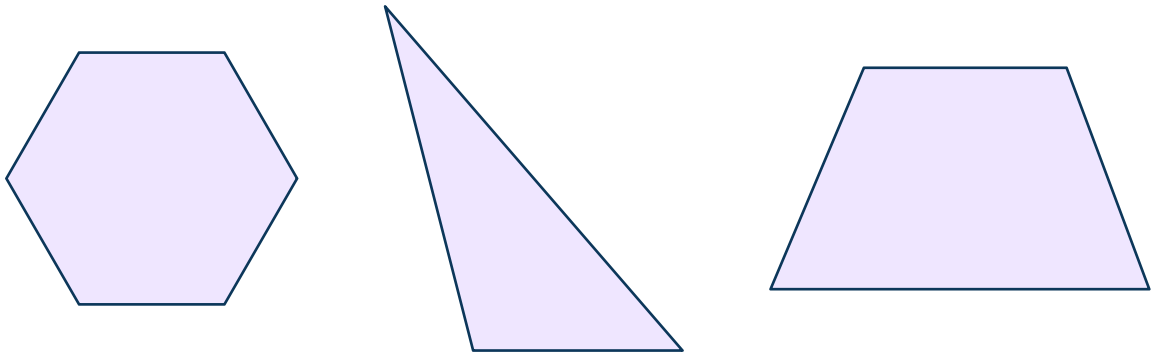
C. 

D. 

14 Starting number: 132
Rule: add 12 each time
Which statement is true about the numbers in the pattern?

A. All the numbers are even.
B. All the numbers are odd.
C. The numbers alternate between even and odd.
D. The first number is even and the rest are odd.

15 Pedro sorts these figures into the same group.



Which statement best describes the figures in this group?

A. Each figure has at least one acute angle.
B. Each figure has at least one pair of parallel sides.
C. Each figure has at least one obtuse angle.
D. Each figure is a regular polygon.

---

16 Which number comparison is true?

A. Five thousand four hundred twelve = (5 × 1,000) + (4 × 100) + (1 × 10) + (2 × 1)
B. (7 × 1,000) + (5 × 10) + (2 × 1) > seven thousand fifty-two
C. (3 × 10,000) + (4 × 1,000) + (9 × 1) > thirty-four thousand nine
D. Sixteen thousand two hundred five > (1 × 10,000) + (6 × 1,000) + (2 × 100) + (5 × 1)

17 Which table shows the relationship between cups and quarts?
(1 quart = 4 cups)

A.

cups	quarts
1	8
2	16
3	24

B.

cups	quarts
8	1
16	2
24	3

C.

cups	quarts
4	1
8	2
12	3

D.

cups	quarts
5	1
6	2
7	3

18 What is the value of 4,256 x 8?

A. 4,264
B. 34,048
C. 34,098
D. 36,176

19 Which process shows the correct way to add the fractions below?

$\frac{4}{100} + \frac{5}{10}$

A. $\frac{4}{100} + \frac{5}{10} = \frac{4+5}{100+10} = \frac{9}{110}$

B. $\frac{4}{100} + \frac{5}{10} = \frac{4+5}{100} = \frac{9}{100}$

C. $\frac{4}{100} + \frac{50}{10} = \frac{4+50}{100+10} = \frac{54}{110}$

D. $\frac{4}{100} + \frac{50}{100} = \frac{4+50}{100} = \frac{54}{100}$

20 What are the next 3 numbers in the pattern?

6, 11, 21, 36, 56, ____, ____, ____

A. 81, 111, 146
B. 76, 96, 116
C. 66, 76, 86
D. 61, 66, 71

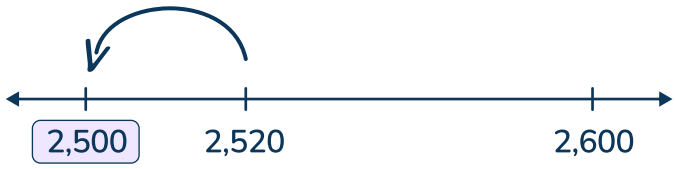
---

21 Which shows 2,520 rounded to the nearest hundred on a number line?

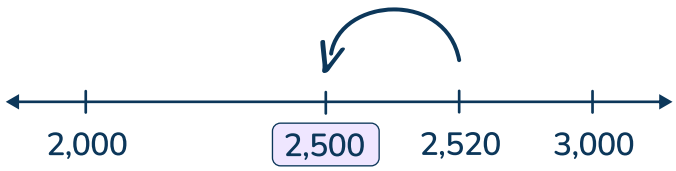
A.

B.

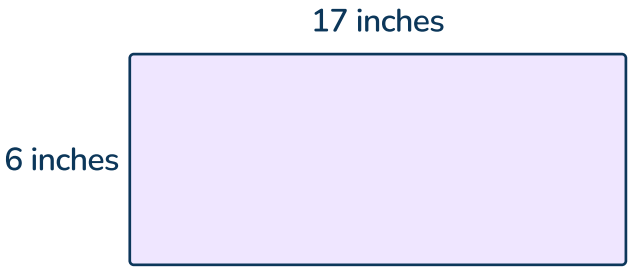
C.



D.



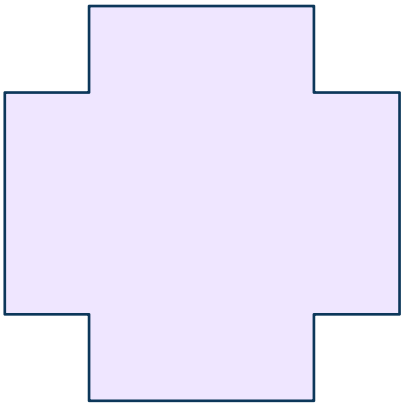
22 What is the area of the rectangle?



A. 23 inches
B. 46 inches
C. 102 square inches
D. 80 square inches

---

23 How many line segments make up the polygon?



A. 12
B. 3
C. 10
D. 9

24 Caleb read for 20 minutes. Then he played his video game for 45 minutes before he spent time eating lunch. If he started reading at 9:50 am and finished eating lunch at 11:35 pm, how long did he spend eating lunch?

A. 40 minutes
B. 50 minutes
C. 35 minutes
D. 30 minutes

25 Zach's garden is 12 feet by 17 feet. If each plant needs 8 square feet of space, how many plants can Zach have in his garden?

A. 204 plants
B. 36 plants
C. 212 plants
D. 25 plants

26 Round 50,819 to the nearest hundred.

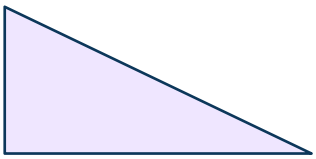
A. 51,000
B. 50,800
C. 50,820
D. 50,900

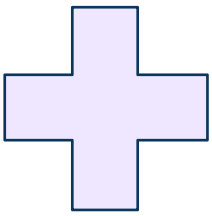
27 Carlos has 6 cups of juice. He gives his sister $1\frac{5}{8}$ cups of juice. He drinks $2\frac{1}{8}$ cups of juice. How much juice is left?

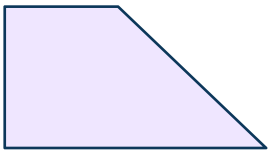
A. $2\frac{1}{8}$ cups
B. $3\frac{3}{8}$ cups
C. $1\frac{2}{8}$ cups
D. $2\frac{2}{8}$ cups

28 Which shape does **NOT** have a right angle?

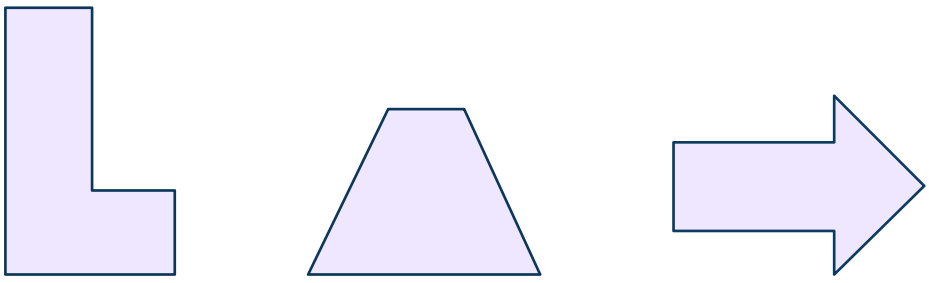
A. 

B. 

C. 

D. 

29 Which figures have both parallel and perpendicular sides?



L M N

A. Figure M

B. Figures L & N

C. Figure N

D. None of the figures

30 J.D. had 1 pan of brownies. He ate $\frac{2}{8}$ of the brownies on Friday, $\frac{3}{8}$ of the brownies on Saturday, and $\frac{2}{8}$ of the brownies on Sunday. What fraction of the brownies were left after Sunday?

A. $\frac{1}{8}$

B. $\frac{2}{8}$

C. $\frac{5}{8}$

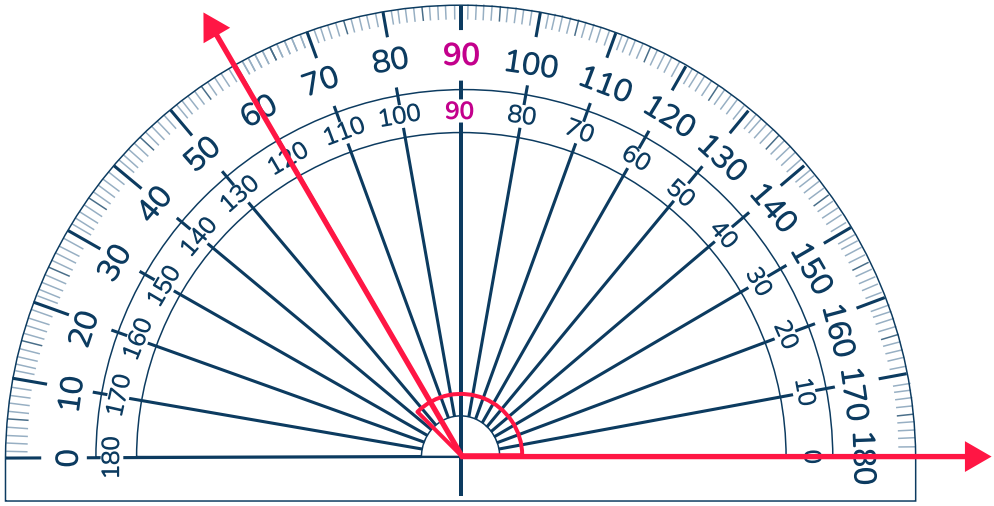
D. $\frac{6}{8}$

31 What number can you place within the equation to make it true?

$525 \div 5 = (\triangle \div 5) + (25 \div 5)$

A. 100
B. 525
C. 500
D. 25

32 What is the measure of the angle?



A. 145°
B. 30°
C. 120°
E. 60°

Standard: 4.NBT.6
DOK 3
Short Answer Response - 5 points

33 Norma used the following strategy to solve 6,390 ÷ 8.

$6 \times 1{,}000 = 6{,}000$

$6 \times 60 = 320$

$6 \times 5 = 30$

	6,	3	9	0
−	6,	0	0	0
		3	9	0
−		3	2	0
			3	0
−			3	0
				0

$1{,}000 + 60 + 5 =$

- Explain Norma's strategy, including identifying any mistakes.
- Finish solving with Norma's strategy and show the final quotient.

Standard: 4.OA.2, 4.OA.3
DOK 2
Short Answer Response - 5 points

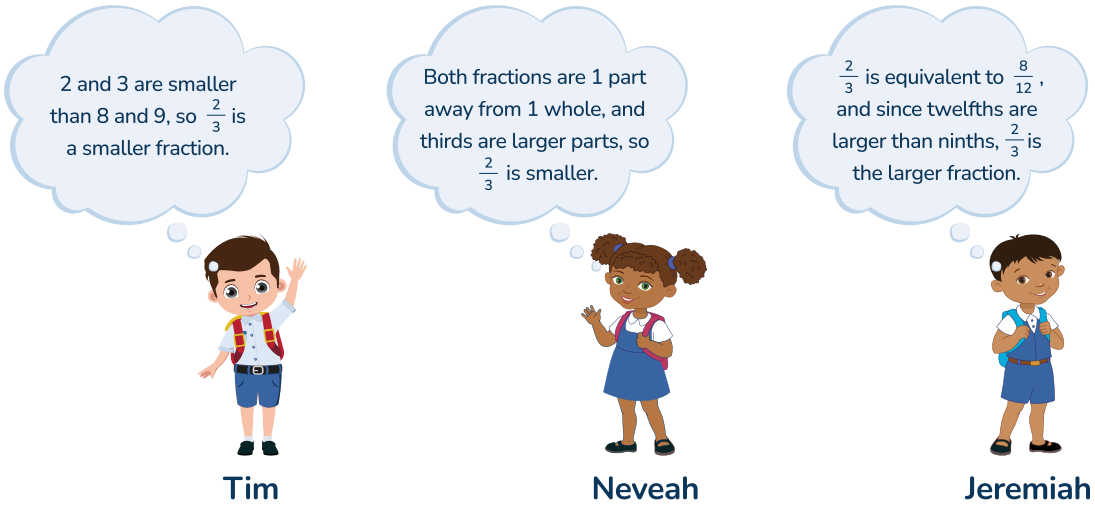
34 Over spring break, Andrew read 48 pages of a book. Tammy read 6 times as many pages of the same book. Tammy read 3 times as many pages as Nico.

Write an expression to represent the number of pages Tammy read and an expression to represent the number of pages Nico read. Then, find the value of each expression.

Tammy	Nico

Standard: 4.NF.2
DOK 3
Short Answer Response - 5 points

35 A class is comparing the fractions $\frac{2}{3}$ and $\frac{8}{9}$. Below are 3 students' responses.



Critique each student's response - explaining which parts are correct and identifying and fixing any mistakes.

Answer Key - Multiple Choice

Item number	Correct answer	Standard(s)	DOK	CCSS-MC
1	C	**4.NS.6**	DOK 1	Essential
2	B	**4.CA.5**	DOK 2	Essential
3	D	**4.CA.1**	DOK 2	Essential
4	D	**4.CA.4**	DOK 1	Standard
5	C	**4.M.3, 4.CA.1**	DOK 2	Essential
6	A	**4.CA.4**	DOK 2	Standard
7	B	**4.NS.4**	DOK 1	Essential
8	C	**4.CA.2**	DOK 2	Essential
9	A	**4.DA.2**	DOK 2	Standard
10	A, E	**4.NS.7**	DOK 1	Essential
11	B	**4.NS.5**	DOK 2	Essential
12	D	**4.CA.9**	DOK 2	Standard
13	A	**4.NS.3**	DOK 2	Standard
14	A	**4.CA.9**	DOK 2	Standard
15	C	**4.G.3**	DOK 2	Standard
16	A	**4.NS.1**	DOK 2	Standard
17	C	**4.M.2**	DOK 1	Essential
18	B	**4.CA.1**	DOK 1	Essential
19	D	**4.NS.5**	DOK 2	Essential
20	A	**4.CA.9**	DOK 2	Standard

Item number	Correct answer	Standard(s)	DOK	CCSS-MC
21	C	**4.NS.7**	DOK 2	Standard
22	C	**4.M.4, 4.CA.1**	DOK 1	Essential
23	A	**4.G.2**	DOK 1	Standard
24	A	**4.M.3**	DOK 2	Standard
25	D	**4.M.3**	DOK 2	Essential
26	B	**4.NS.7**	DOK 1	Standard
27	D	**4.CA.8**	DOK 2	Essential
28	A	**4.G.3**	DOK 1	Standard
29	B	**4.G.3**	DOK 2	Standard
30	A	**4.CA.8**	DOK 2	Essential
31	C	**4.CA.3**	DOK 1	Essential
32	C	**4.G.2**	DOK 1	Standard
33	Short answer response	**4.CA.2**	DOK 3	Essential
34	Short answer response	**4.CA.5**	DOK 2	Essential
35	Short answer response	**4.NS.4**	DOK 3	Essential

Item	KEY	Rationale
33	5 points	Student correctly explains the mistake Norma made and how she can fix it (320 should be 360 because 60 multiplied by 6 is 360, not 320.) Student correctly divides by adding the partial quotients of 1,000 + 60 + 5 = 1,065.
	2.5 points	Student correctly solves using Norma's strategy OR correctly explains the mistake.
	0 points	Student does not correctly explain the mistake AND does not correctly solve the equation using Norma's strategy.

Item	KEY	Rationale
34	5 points	To receive 5 points, students need to write a correct expression for both Tammy and Nico and find the correct value of each one. Tammy: $48 \times 6 = 288$ pages Nico: $288 \div 3 = 96$ pages
	2.5 points	Students will receive 2.5 points if they only write one correct expression or if they only evaluate one expression correctly.
	0 points	Students will receive 0 points if they leave the response blank, or if they do not write a correct expression or solve correctly.

Item	KEY	Rationale
35	5 points	Student identifies and explains all the correct and incorrect parts... • Tim compared the numerator and denominator separately, which is incorrect. Even though he had the right answer, his reasoning was wrong. • Nevaeh saw that both numerators were 1 away from a whole, so each fraction is only missing one part. Since thirds are larger, they will be farther away from 1 than eighths. Her answer and reasoning are correct. • Jeremiah creates equivalent fractions to compare numerators. However, he is wrong when he says twelfths are larger, they are smaller, making 8/9 the bigger fraction.
	2.5 points	Student explains most correct and incorrect parts (missing no more than 1 part) OR student makes 1 mistake.
	0 points	Students do not identify most correct or incorrect parts OR make multiple mistakes.

ANSWERS SORTED BY REPORTING CATEGORY

Number Sense			
1	C	**4.NS.6**	DOK 1
7	B	**4.NS.4**	DOK 1
10	A, E	**4.NS.7**	DOK 1
11	B	**4.NS.5**	DOK 2
13	A	**4.NS.3**	DOK 2
16	A	**4.NS.1**	DOK 2
19	D	**4.NS.5**	DOK 2
21	C	**4.NS.7**	DOK 2
26	B	**4.NS.7**	DOK 1
35	Short answer response	**4.NS.4**	DOK 3

Computation and Algebraic Thinking			
2	B	**4.CA.5**	DOK 2
3	D	**4.CA.1**	DOK 2
4	D	**4.CA.4**	DOK 1
6	A	**4.CA.4**	DOK 2
8	C	**4.CA.2**	DOK 2
12	D	**4.CA.9**	DOK 2
14	A	**4.CA.9**	DOK 2
18	B	**4.CA.1**	DOK 1
20	A	**4.CA.9**	DOK 2
27	D	**4.CA.8**	DOK 2
30	A	**4.CA.8**	DOK 2
31	C	**4.CA.3**	DOK 1
33	Short answer response	**4.CA.2**	DOK 3
34	Short answer response	**4.CA.5**	DOK 2

Geometry, Measurement, and Data Analysis			
5	C	**4.M.3, 4.CA.1**	DOK 2
9	A	**4.DA.2**	DOK 2
15	C	**4.G.3**	DOK 2
17	C	**4.M.2**	DOK 1
22	C	**4.M.4, 4.CA.1**	DOK 1
23	A	**4.G.2**	DOK 1
24	A	**4.M.3**	DOK 2
25	D	**4.M.3**	DOK 2
28	A	**4.G.3**	DOK 1
29	B	**4.G.3**	DOK 2
32	C	**4.G.2**	DOK 1

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

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

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

Speak to us

thirdspacelearning.com/us/

(929) 298 - 4593

hello@thirdspacelearning.com

THIRD SPACE LEARNING