



THIRD SPACE
LEARNING

4th Grade Maryland State Practice Math Test

Maryland Practice Test Grade
4

Grade 4

Questions

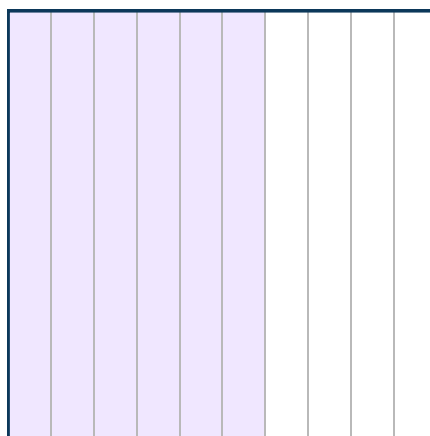
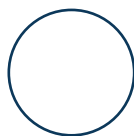
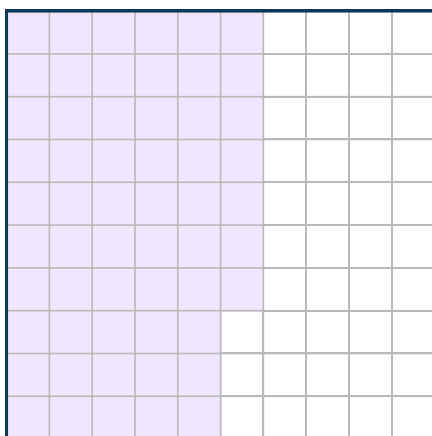
Name:

Class:

Date:

Score:

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



- A. $0.57 > 0.6$
- B. $0.57 < 0.06$
- C. $0.57 < 0.6$
- D. $57 < 6$

- 2 Joey is planting a garden with his aunt. They planted 6 times as many tomato plants as zucchini plants. If there are 24 tomato plants, how many zucchini plants are there?

- A. 4 zucchini plants
- B. 6 zucchini plants
- C. 30 zucchini plants
- D. 144 zucchini plants

- 3 Using the following rectangular array, Diya solves 42×18 .

400	20
?	16

What missing number will complete Diya's array?

- A. 32
 - B. 4
 - C. 320
 - D. 40
-

- 4 Which set of numbers are all multiples of 15?

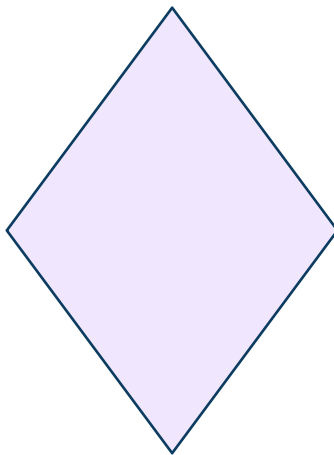
- A. 5, 10, 15, 20
- B. 15, 30, 45, 60
- C. 1, 3, 5, 15
- D. 15, 20, 25, 30

- 5 Coach Mason brings a 5 gallon water cooler to soccer practice. How many pints of water can the cooler hold?

(1 gallon = 8 pints)

- A. 8 pints
- B. 58 pints
- C. 45 pints
- D. 40 pints

-
- 6 How many lines of symmetry does the figure below have?



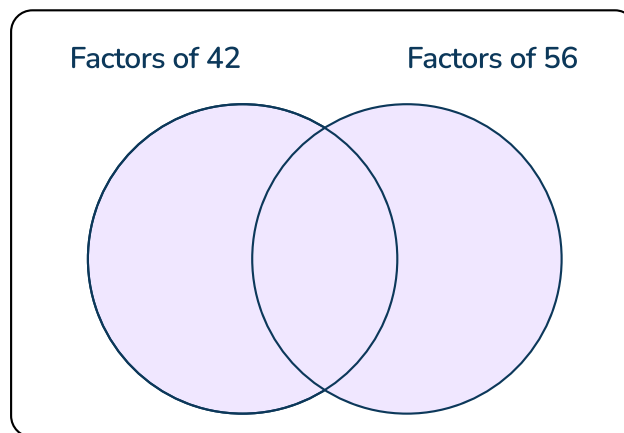
- A. 1
- B. 4
- C. 0
- D. 2

- 7 A class is comparing the digits' values in the numbers 367,924 and 39,647.

Which statements are true? Select all that apply.

- A. The digit 9 in 39,647 is ten times larger than in 367,924.
- B. The digit 4 in 367,924 is ten times larger than in 39,647.
- C. The digit 7 in 39,647 is one thousand times smaller than in 367,924.
- D. The digit 3 in 367,924 is one hundred times larger than in 39,647.
- E. The digit 6 in 367,924 is one thousand times larger than in 39,647.

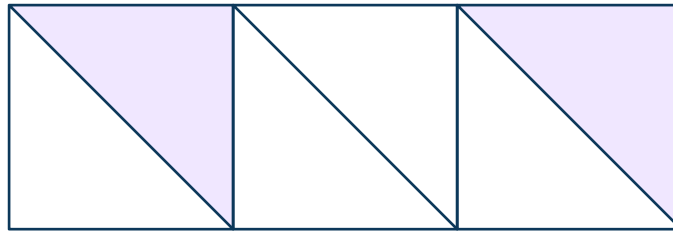
-
- 8 Examine the Venn diagram.



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

- A. 2
- B. 7
- C. 12
- D. 14

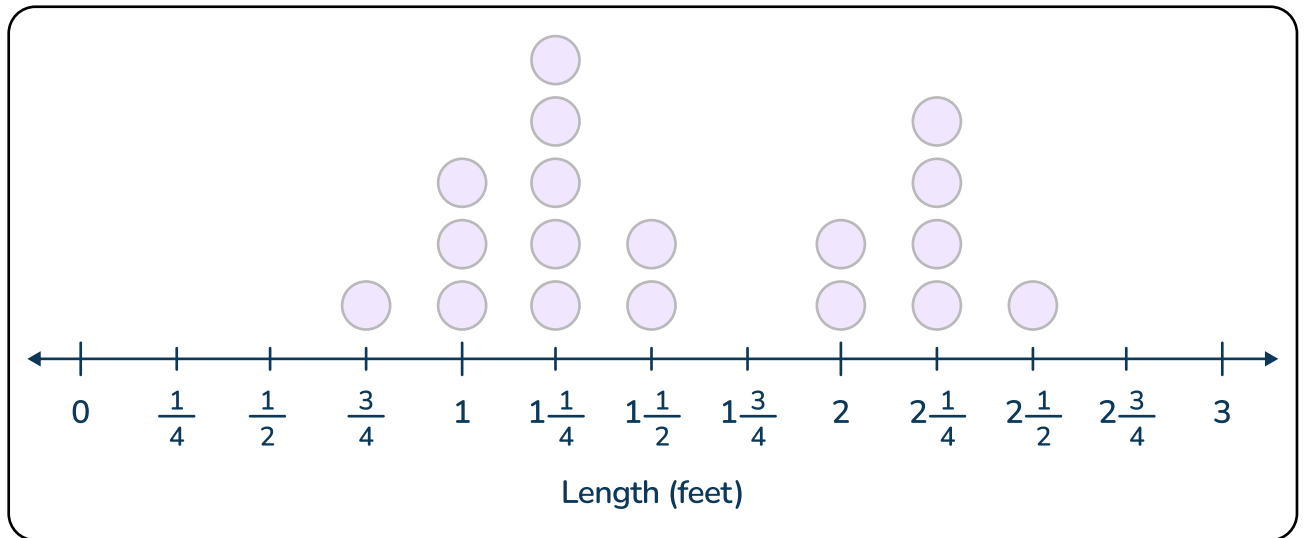
- 9 Tucker has divided a rectangle into 6 equal parts and shaded 2 of them. Which fractions does Tucker's rectangle show as equivalent?



- A. $\frac{1}{6} = \frac{2}{3}$
- B. $\frac{2}{6} = \frac{2}{3}$
- C. $\frac{2}{4} = \frac{1}{2}$
- D. $\frac{1}{3} = \frac{2}{6}$
-
- 10 Derek is packing his baseball card collection into albums. Each album holds 24 cards. He has 575 cards in total. How many albums does Derek need to store all of his cards?

- A. 23
- B. 8
- C. 24
- D. 15

- 11 The line plot shows the lengths of Lana's ribbons.

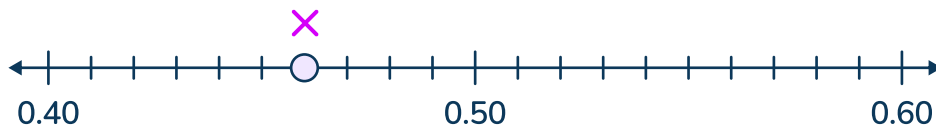


What is the difference between the longest and shortest ribbon?

- A. $2\frac{1}{4}$ feet
 - B. $1\frac{3}{4}$ feet
 - C. $\frac{3}{4}$ foot
 - D. $1\frac{1}{4}$ feet
-
- 12 Which of the following numbers round to 800 when rounded to the nearest hundred? Select all that apply.

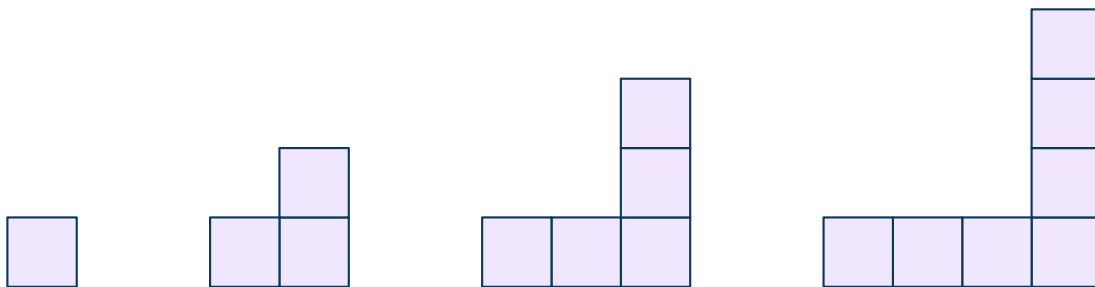
- A. 847
- B. 748
- C. 921
- D. 785
- E. 872

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



- A. 0.46
- B. 0.40
- C. 0.47
- D. 0.54

- 14 Look at the pattern of figures below. If the pattern continues, how many squares will make up the 8th figure?



- A. 2
- B. 9
- C. 13
- D. 15

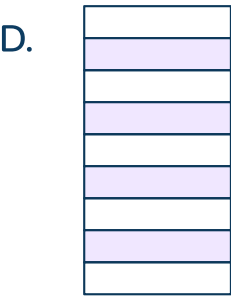
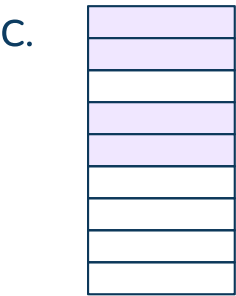
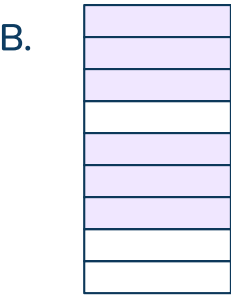
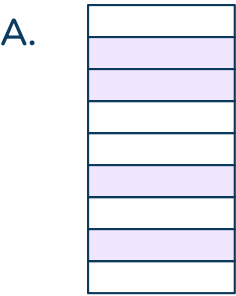
15 Kira subtracted with the standard algorithm.

	6,	9	8	2
-	2,	7	3	5
	4,	2	5	3

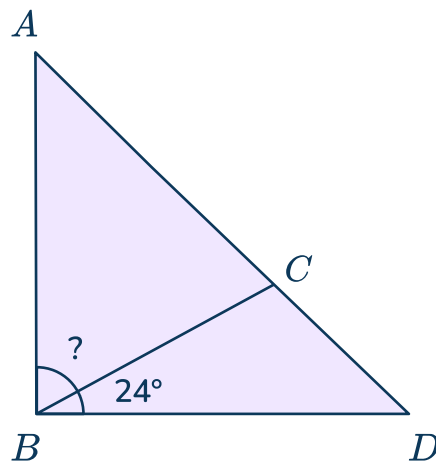
What mistake did Kira make?

- A. She did not make any mistakes.
- B. She did not line up the place values correctly.
- C. She did not exchange a ten to subtract the ones.
- D. She did not regroup the hundreds to make 7 thousands on top.

16 The shapes are divided into equal parts. Which shape is $\frac{2}{3}$ shaded?



- 17 The right triangle below is divided into two parts. The measure of angle CBD is 24 degrees. What is the measure of angle ABC?

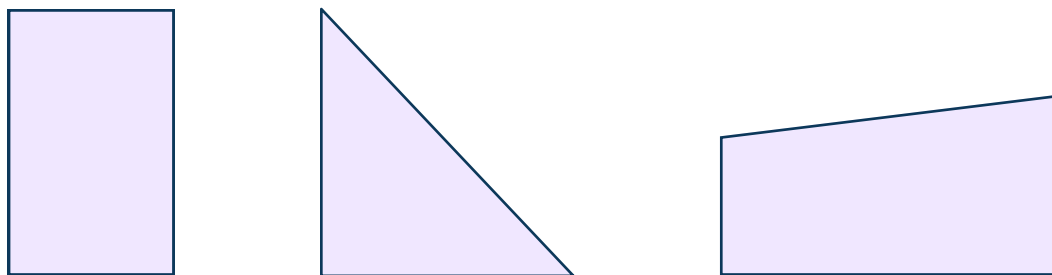


- A. 51°
- B. 66°
- C. 90°
- D. 36°

-
- 18 Starting number: 48
Rule: add 16 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 odd and the rest are even.

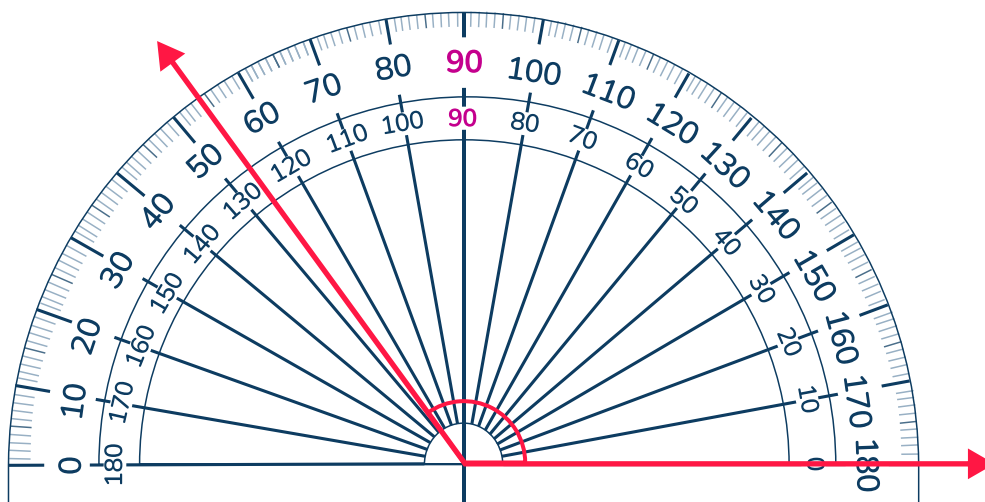
- 19 Theo sorts these figures into the same group.



Which statement best describes the figures in this group?

- A. Each figure has at least one pair of parallel sides.
- B. Each figure has at least one acute angle.
- C. Each figure at least one right angle.
- D. Each figure has at least one obtuse angle.

- 20 What is the measure of the angle?



- A. 134°
- B. 54°
- C. 126°
- D. 66°

21 Which number comparison is true?

- A. $(2 \times 1,000) + (7 \times 10) + (5 \times 1) < \text{two thousand seven hundred five}$
 - B. $\text{Four thousand three hundred six} = (4 \times 1,000) + (3 \times 100) + (6 \times 10)$
 - C. $(5 \times 10,000) + (9 \times 1,000) + (6 \times 1) > \text{fifty nine thousand sixty}$
 - D. $\text{Twelve thousand one hundred seventy} < (1 \times 1,000) + (2 \times 100) + (7 \times 10)$
-

22 Solve $71,805 - 45,683$.

- A. 34,282
- B. 26,122
- C. 24,282
- D. 26,028

- 23 Which table shows the relationship between pounds and ounces?
(1 pound = 16 ounces)

A.

ounces	pounds
1	16
2	32
3	48

B.

ounces	pounds
1	16
2	32
3	48

C.

pounds	ounces
8	1
16	2
24	3

D.

ounces	pounds
16	1
24	2
36	3

- 24 Maya and Lily each ran at a track meet. Maya ran $\frac{7}{8}$ of a mile. Lily ran 3 times as far as Maya. How many miles did Lily run?

A. $3\frac{7}{8}$ miles
B. $2\frac{3}{8}$ miles
C. $2\frac{5}{8}$ miles
D. $3\frac{5}{8}$ miles

-
- 25 What is the value of $2,435 \times 6$?

A. 1,461
B. 15,580
C. 14,610
D. 12,580

- 26 Which process shows a correct way to add the fractions below?

$$\frac{8}{100} + \frac{3}{10}$$

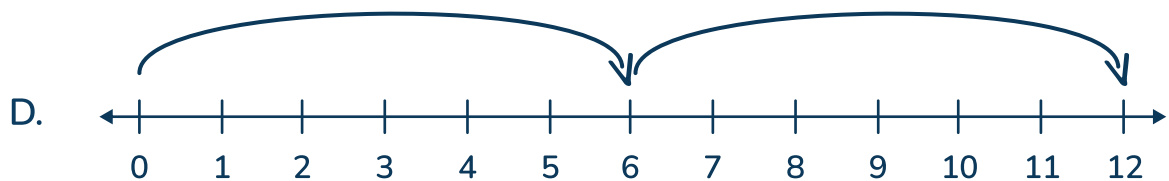
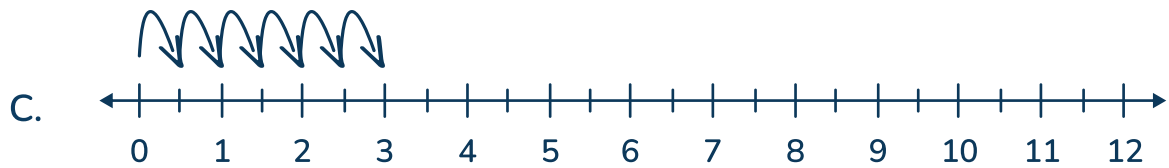
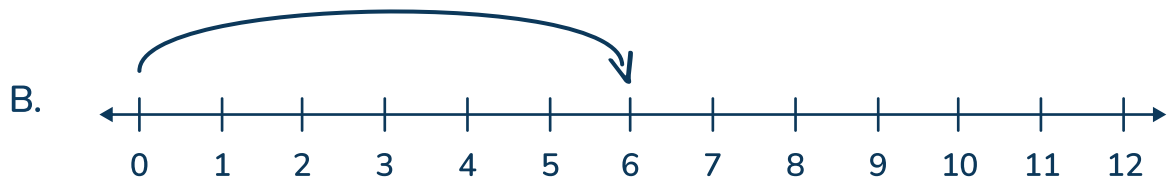
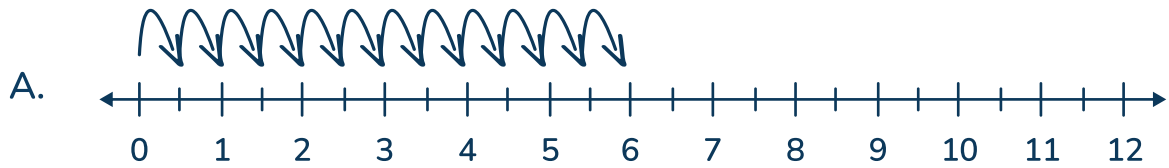
- A. $\frac{8}{100} + \frac{3}{10} = \frac{8+3}{100+10} = \frac{11}{110}$
- B. $\frac{8}{100} + \frac{3}{10} = \frac{8+3}{100} = \frac{11}{100}$
- C. $\frac{8}{100} + \frac{30}{100} = \frac{8+30}{100} = \frac{38}{100}$
- D. $\frac{8}{100} + \frac{30}{10} = \frac{8+30}{100+10} = \frac{38}{110}$
-

- 27 What are the next 3 numbers in the pattern?

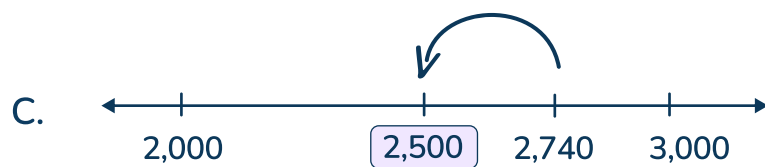
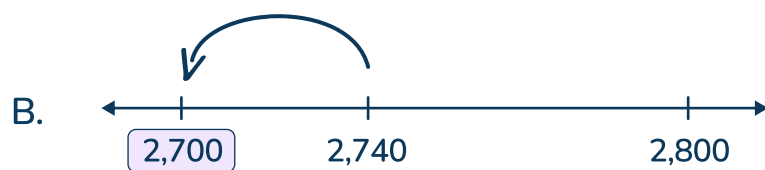
5, 12, 20, 29, 39, _____, _____, _____

- A. 50, 62, 75
- B. 46, 53, 60
- C. 50, 61, 73
- D. 49, 59, 69

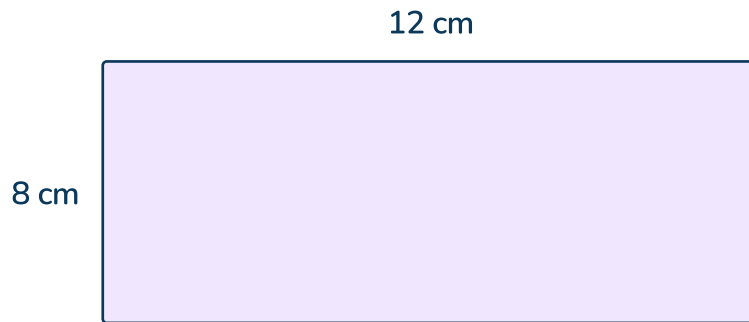
- 28 Choose the number line model that shows $6 \times \frac{1}{2}$.



- 29 Which shows 2,740 rounded to the nearest hundred on a number line?



30 What is the area of the rectangle?



- A. 20 centimeters
 - B. 40 centimeters
 - C. 96 square centimeters
 - D. 84 square centimeters
-

31 How many line segments make up the polygon?



- A. 3
- B. 4
- C. 5
- D. 6

- 32 Sophia worked on her homework for 30 minutes. Then, she watched a movie for 1 hour and 15 minutes before she took her dog for a walk. If she started her homework at 3:00 pm and finished walking her dog at 5:20 pm, how long did she spend walking her dog?

A. 35 minutes
B. 40 minutes
C. 25 minutes
D. 20 minutes

- 33 Which statements match an equation equal to 36? Select all that apply.

A. 3 times as many as 8
B. 4 times as many as 6
C. 12 times as many as 3
D. 9 times as many as 4

34 Lila's vegetable patch measures 12 feet by 10 feet. If each vegetable plant requires 4 square feet of space, how many plants can Lila fit in her vegetable patch?

- A. 30 plants
- B. 40 plants
- C. 120 plants
- D. 480 plants

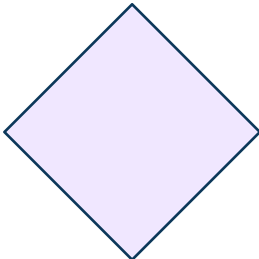
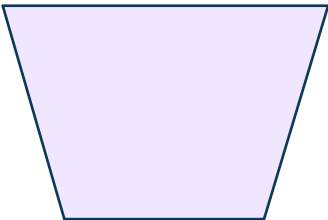
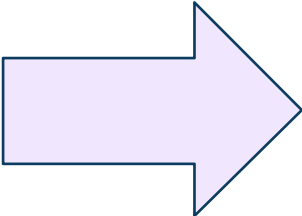
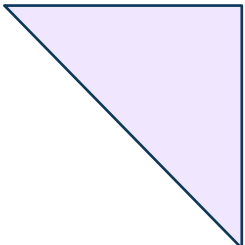
35 Round 57,392 to the nearest hundred.

- A. 57,000
- B. 57,400
- C. 58,000
- D. 57,300

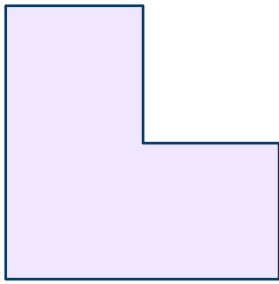
- 36 Bailey has 6 cups of water. She uses $1\frac{1}{8}$ cups to water her snake plant. She pours $2\frac{6}{8}$ cups of water into her dog's water bowl. How much water is left?

- A. $2\frac{1}{8}$ cups
B. $9\frac{7}{8}$ cups
C. $3\frac{1}{8}$ cups
D. $3\frac{7}{8}$ cups
-

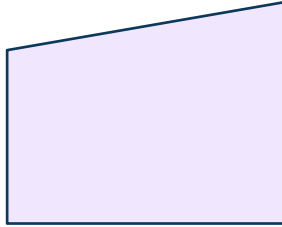
- 37 Which shape does NOT have a right angle?

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

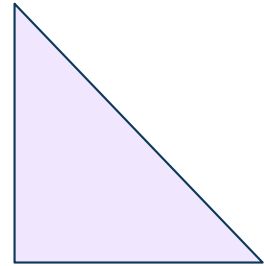
38 Which figure has both parallel and perpendicular sides?



X



Y



Z

- A. None of the figures
- B. Figure X
- C. Figure Z
- D. Figure X & Y

39 Solve $63,408 + 279,054$.

- A. 202,454
- B. 342,462
- C. 242,352
- D. 332,452

- 40 Georgia had 1 whole chocolate bar. She ate $\frac{1}{10}$ of the chocolate bar on Thursday, $\frac{3}{10}$ of the chocolate bar on Friday, and $\frac{3}{10}$ of the chocolate bar on Saturday. What fraction of the chocolate bar was left after Saturday?

A. $\frac{7}{10}$

B. $\frac{2}{5}$

C. $\frac{3}{10}$

D. $\frac{3}{5}$

Standard: 4.NBT.6

DOK 3

Short Answer Response - 5 points

41 Tristan used the following strategy to solve $1,764 \div 6$.

		2	1	3		
6)	1,	7	6	4	
	-	6	0	0	100	(100 × 6)
		1,	1	6	4	
	-	6	0	0	100	(100 × 6)
		5	6	4		
	-	5	4	0	9	(9 × 6)
			2	4		
		-	2	4	4	(4 × 6)
				0		
					213	

- Explain Tristan’s strategy, including identifying any mistakes.
- Use Tristan’s strategy to solve the equation correctly. Show the final quotient.

Standard: 4.OA.2, 4.OA.3

DOK 2

Short Answer Response - 5 points

- 42 Over the weekend, Maria baked 48 cookies. Diego baked 4 times as many cookies as Maria. Diego baked 2 times as many cookies as Emma.

Write an expression to represent the number of cookies Diego baked and an expression to represent the number of cookies Emma baked. Then, find the value of each expression.

Diego	Emma

Standard: 4.NF.2

DOK 3

Short Answer Response - 5 points

43 A class is comparing the fractions $\frac{3}{4}$ and $\frac{7}{8}$. Below are 3 students' responses.

3 and 4 are smaller than 7 and 8, so $\frac{3}{4}$ is a smaller fraction.



Nolan

Both fractions are 1 part away from 1 whole, and fourths are larger parts, so $\frac{3}{4}$ is smaller.



Jasmine

$\frac{3}{4}$ is equivalent to $\frac{9}{12}$, and since twelfths are larger than eighths, $\frac{3}{4}$ is the larger fraction.



Josiah

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

Answer Key - Multiple Choice

Item number	Correct answer	Standard(s)	DOK
1	C	4.NF.7	DOK 1
2	A	4.OA.1, 4.OA.2	DOK 2
3	C	4.NBT.5	DOK 2
4	B	4.OA.4	DOK 1
5	D	4.MD.2, 4.NBT.5	DOK 2
6	D	4.G.3	DOK 1
7	A, C	4.NBT.1	DOK 1
8	D	4.OA.4	DOK 2
9	D	4.NF.2	DOK 1
10	C	4.NBT.6, 4.OA.3*	DOK 2
11	B	4.MD.4	DOK 2
12	A, D	4.NBT.3	DOK 1
13	A	4.NF.6	DOK 2
14	D	4.OA.5	DOK 2
15	C	4.NBT.4	DOK 3
16	B	4.NF.1	DOK 2
17	B	4.MD.7	DOK 1
18	A	4.OA.5	DOK 2
19	C	4.G.2	DOK 2

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Item number	Correct answer	Standard(s)	DOK
20	C	4.MD.6	DOK 1
21	A	4.NBT.1, 4.NBT.2*	DOK 2
22	B	4.NBT.4	DOK 1
23	D	4.MD.1	DOK 1
24	C	4.NF.4a, 4.NF.4b 4.NF.4c*	DOK 2
25	C	4.NBT.5	DOK 1
26	C	4.NF.5	DOK 2
27	A	4.OA.5	DOK 2
28	C	4.NF.4	DOK 1
29	B	4.NBT.3	DOK 2
30	C	4.MD.3, 4.NBT.5	DOK 1
31	C	4.G.1	DOK 1
32	A	4.MD.2	DOK 2
33	C, D	4.OA.1	DOK 1
34	A	4.MD.2	DOK 2
35	B	4.NBT.3	DOK 1
36	A	4.NF.3	DOK 2
37	B	4.G.2	DOK 1
38	D	4.G.2	DOK 2
39	B	4.NBT.4	DOK 1
40	C	4.NF.3a, 4.NF.3b, 4.NF.3c, 4.NF.3d*	DOK 2

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Item	KEY	Rationale
41	5 points	<p>Student correctly explains the strategy and the mistake Tristan made and then uses the strategy to solve correctly (partial product 9 should be 90 (90×6 gives us 540, not 9×6)).</p> <p>Student correctly divides by adding the partial quotients of $100 + 100 + 90 + 4 = 294$.</p>
	2.5 points	Student correctly solves using Tristan's strategy OR correctly explains the mistake.
	0 points	Student does not correctly explain the mistake AND does not correctly solve the equation using Tristan's strategy.

Item	KEY	Rationale
42	5 points	<p>To receive 5 points, students need to write a correct expression for both Diego and Emma, and they need to find the correct value of each one.</p> <p>Diego: $4 \times 48 = 192$ cookies Emma: $192 \div 2 = 96$ cookies</p>
	2.5 points	Students will receive 2.5 points if they only write one correct expression or if they only calculate one expression correctly.
	0 points	Students is incorrect or leaves the response blank.

Item	KEY	Rationale
43	5 points	<p>Student identifies and explains all the correct and incorrect parts...</p> <ul style="list-style-type: none">• Nolan compared the numerator and denominator separately, which is incorrect. Even though he had the right answer, his reasoning was wrong.• Jasmine saw that both numerators were 1 away from a whole, so each fraction is only missing one part. Since fourths are larger, they will be farther away from 1 than eighths. Her answer and reasoning are correct.• Josiah creates equivalent fractions to compare numerators. However, he is wrong when he says twelfths are larger; they are smaller, making $\frac{7}{8}$ 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 CCSS STRAND

OA			
Item number	Correct answer	Standard(s)	DOK
2	A	4.OA.1, 4.OA.2	DOK 2
4	B	4.OA.4	DOK 1
8	D	4.OA.4	DOK 2
10	C	4.NBT.6, 4.OA.3*	DOK 2
14	D	4.OA.5	DOK 2
18	A	4.OA.5	DOK 2
27	A	4.OA.5	DOK 2
33	C, D	4.OA.1	DOK 1
42	Short answer response	4.OA.2, 4.OA.3	DOK 2

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NBT			
Item number	Correct answer	Standard(s)	DOK
3	C	4.NBT.5	DOK 2
7	A, C	4.NBT.1	DOK 1
12	A, D	4.NBT.3	DOK 1
15	C	4.NBT.4	DOK 3
21	A	4.NBT.1, 4.NBT.2	DOK 2
22	B	4.NBT.4	DOK 1
25	C	4.NBT.5	DOK 1
29	B	4.NBT.3	DOK 2
35	B	4.NBT.3	DOK 1
39	B	4.NBT.4	DOK 1
41	Short answer response	4.NBT.6	DOK 3

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NF			
Item number	Correct answer	Standard(s)	DOK
1	C	4.NF.7	DOK 1
9	D	4.NF.2	DOK 1
13	A	4.NF.6	DOK 2
16	B	4.NF.1	DOK 2
24	C	4.NF.4.a, 4.NF.4.b 4.NF.4.c*	DOK 2
26	C	4.NF.5	DOK 2
28	C	4.NF.4	DOK 1
36	A	4.NF.3	DOK 2
40	C	4.NF.3a, 4.NF.3b, 4.NF.3c, 4.NF.3d*	DOK 2
43	Short answer response	4.NF.2	DOK 3

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MD			
Item number	Correct answer	Standard(s)	DOK
5	D	4.MD.2, 4.NBT.5	DOK 2
11	B	4.MD.4	DOK 2
17	B	4.MD.7	DOK 1
20	C	4.MD.6	DOK 1
23	D	4.MD.1	DOK 1
30	C	4.MD.3, 4.NBT.5	DOK 1
32	A	4.MD.2	DOK 2
34	A	4.MD.2, 4.MD.3, 4.NBT.5, 4.NBT.6	DOK 2




G			
Item number	Correct answer	Standard(s)	DOK
6	D	4.G.3	DOK 1
19	C	4.G.1	DOK 2
31	C	4.G.1	DOK 1
37	B	4.G.2	DOK 1
38	D	4.G.2	DOK 2

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