



FSA
ELA & Mathematics
Assessments

Grade 4
FSA Mathematics
Practice Test Questions

The purpose of these practice test materials is to orient teachers and students to the types of questions on paper-based FSA Mathematics tests. By using these materials, students will become familiar with the types of items and response formats they may see on a paper-based test. The practice questions and answers are not intended to demonstrate the length of the actual test, nor should student responses be used as an indicator of student performance on the actual test. The practice test is not intended to guide classroom instruction.

**Directions for Answering the
Mathematics Practice Test Questions**

If you don't know how to work a problem, ask your teacher to explain it to you. Your teacher has the answers to the practice test questions.

You may need formulas and conversions to help you solve some of the problems. You may refer to the Reference Sheet on page 5 as often as you like.

Use the space in your Mathematics Practice Test Questions booklet to do your work.

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.
 - Write your answer with the first digit in the left answer box OR with the last digit in the right answer box.
 - Write only one digit or symbol in each answer box. Do NOT leave a blank answer box in the middle of an answer.
 - 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.
 - 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.

	/	/	/	/	/	/	
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

} Answer boxes

} Fraction bar

} Decimal point

} Number bubbles

Do NOT write a mixed number, such as $3\frac{1}{2}$, in the answer boxes.

Change the mixed number to an equivalent fraction, such as $\frac{7}{2}$, or to an equivalent decimal, such as 3.5. Do not try to fill in $3\frac{1}{2}$, as it would be read as $\frac{31}{2}$ and would be counted wrong.

CORRECT

7	/	2				
	●	○	○	○	○	
○	○	○	○	○	○	○
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	●	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
●	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

OR

INCORRECT

Grade 4 FSA Mathematics Reference Sheet

Customary Conversions

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile = 1,760 yards

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

Metric Conversions

1 meter = 100 centimeters
1 meter = 1000 millimeters
1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams
1 kilogram = 1000 grams

Time Conversions

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 year = 365 days
1 year = 52 weeks

Formulas

$$A = lw$$

$$P = 2l + 2w$$

Use the space in this booklet to do your work. For multiple-choice items, fill in one bubble for the correct answer. For matching items and multiselect items, fill in the bubbles for all of the correct answers. For items with response grids, refer to the Directions for Completing the Response Grids on pages 3 and 4. If you change your answer, be sure to erase completely. Calculators are NOT permitted for Session 1 of this practice test.

- 1.** How many times greater is the value of 5 in 2,573 than the value of 5 in 6,459?
- Ⓐ 10
 - Ⓑ 50
 - Ⓒ 100
 - Ⓓ 500

2. There are 27 players on a soccer team. They are traveling to a game in 7 cars. There are 4 players in each of the first 6 cars.

How many players on the soccer team will travel in the seventh car?

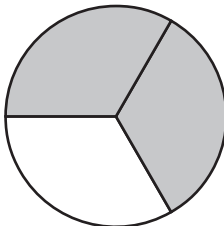
/	/	/	/	/	/	
.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

3. Determine whether each number is prime or composite.

	Prime	Composite
16	(A)	(B)
13	(C)	(D)
12	(E)	(F)
9	(G)	(H)
7	(I)	(J)

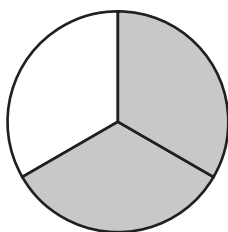
4. Kari represented a fraction by shading parts of the model shown.

Kari's Fraction Model

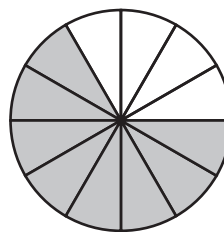


Select all the models that have been shaded to represent fractions equivalent to Kari's fraction.

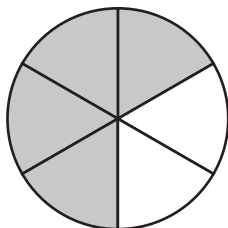
(A)



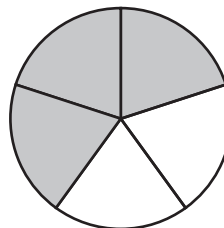
(D)



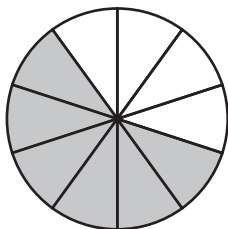
(B)



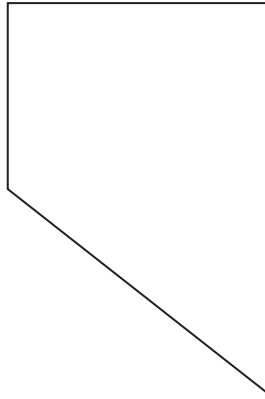
(E)



(C)



5. In social studies class, Armando learned about the state of Nevada. He drew the picture shown to represent the shape of Nevada.



Which list below correctly describes the kinds of angles that appear to be inside the shape above?

- Ⓐ 0 acute, 1 obtuse, 3 right
- Ⓑ 1 acute, 1 obtuse, 2 right
- Ⓒ 3 acute, 0 obtuse, 1 right
- Ⓓ 4 acute, 0 obtuse, 0 right

6. This question has **two** parts.

Two numbers are multiplied using the area model shown.

	2,000	+	700	+	90	+	3
7	14,000		4,900		?		21

Part A. Complete the statement. For the box, fill in the bubble before the value that is correct.

The value of the missing number in the area model is

- | |
|---|
| <p>(A) 90</p> <p>(B) 97</p> <p>(C) 630</p> <p>(D) 2,793</p> <p>(E) 18,921</p> |
|---|

Part B. What is the product of the two numbers represented by the area model?

- (A) 2,793
- (B) 18,921
- (C) 19,551
- (D) 19,558

7. Jing participates in a trivia contest. He completes each question in $\frac{1}{2}$ minute.

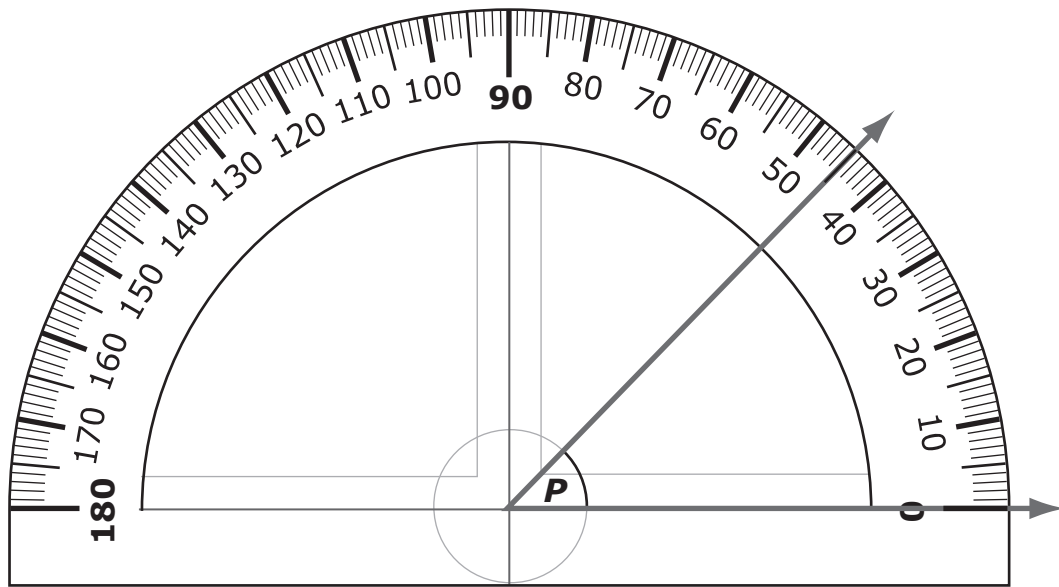
How long does it take for Jing to complete 10 questions?

- (A) 300 seconds
- (B) 600 seconds
- (C) 660 seconds
- (D) 1,200 seconds

8. Round 245,675 to the nearest hundred thousand.

	/	/	/	/	/	
.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

9. What is the measure, in degrees ($^{\circ}$), of angle P ?



- (A) 45°
- (B) 55°
- (C) 135°
- (D) 155°

- 10.** Daniella fills a container with soil by using a bowl. The bowl holds $\frac{3}{4}$ cup of soil. Daniella uses 13 full bowls of soil to fill the container.

How many cups of soil does the container hold?

	/	/	/	/	/	/	
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

- 11.** Which statements correctly compare two numbers?

- (A) $2,059 > 2,095$
- (B) $2,095 < 2,059$
- (C) $2,059 < 2,095$
- (D) $2,095 > 2,059$
- (E) $2,059 = 2,095$

12. A rectangle has a length of 11 feet and a perimeter of 38 feet.

What is the width, in feet, of the rectangle?

	/	/	/	/	/	/	
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

13. What is the value of $1\frac{3}{10}$ in decimal form?

	/	/	/	/	/		
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

14. Which equation is true?

- (A) $340 + 20 = 370 + 10$
- (B) $340 + 30 = 350 + 10$
- (C) $340 + 40 = 340 + 10$
- (D) $340 + 50 = 380 + 10$

- 15.** Johnny has 17 marbles. Mitchell has 3 times as many marbles as Johnny.

How many marbles does Mitchell have?

	/	/	/	/	/	/	
•	•	•	•	•	•	•	•
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

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16. Which figure has a line of symmetry?

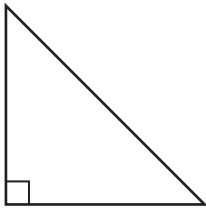
(A)



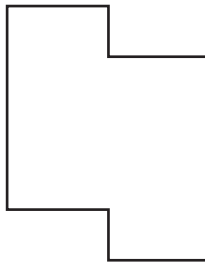
(C)



(B)



(D)



17. The table shows the distances that Brianna ran on four days.

Day	Distance
Monday	2.04 miles
Tuesday	2.37 miles
Wednesday	2.40 miles
Thursday	2.08 miles

Which comparison about the distances is true?

- Ⓐ Monday's distance is equal to Wednesday's distance.
- Ⓑ Tuesday's distance is less than Monday's distance.
- Ⓒ Thursday's distance is less than Tuesday's distance.
- Ⓓ Thursday's distance is greater than Wednesday's distance.

18. Select all the equations that show different ways to represent $\frac{5}{8}$.

Ⓐ $\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$

Ⓑ $\frac{5}{8} + \frac{3}{8} = \frac{5}{8}$

Ⓒ $\frac{1}{8} + \frac{5}{8} = \frac{5}{8}$

Ⓓ $\frac{1}{8} + \frac{3}{8} + \frac{1}{8} = \frac{5}{8}$

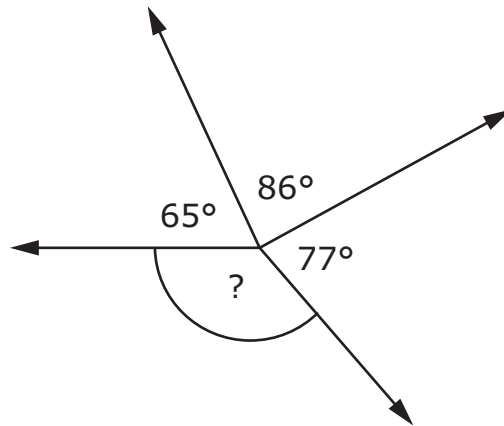
Ⓔ $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$

19. A cheetah jumps 7 meters.

How many centimeters does the cheetah jump?

	/	/	/	/	/	/	
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

20. What is the measure, in degrees ($^{\circ}$), of the missing angle?



	/	/	/	/	/		
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

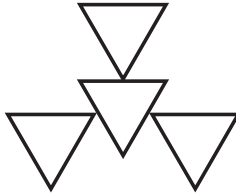
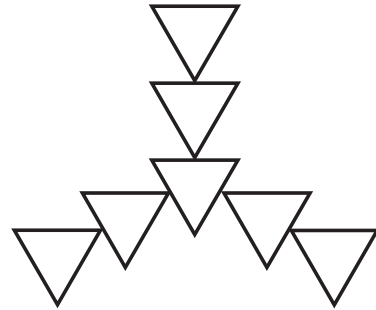
21. An addition statement is shown.

$$\begin{array}{r} 26,\square 54 \\ 18,899 \\ + 12,351 \\ \hline 58,004 \end{array}$$

What is the missing digit that makes the addition statement true?

- Ⓐ 0
- Ⓑ 1
- Ⓒ 7
- Ⓓ 8

22. A pattern starts with one triangle and follows the rule "Add one triangle to the top, add one triangle to the left, and add one triangle to the right." The first three figures for the pattern are shown.

1st Figure**2nd Figure****3rd Figure**

Complete the statement to describe the 4th figure for the pattern shown. For each box, fill in the bubble before the word or phrase that is correct.

The 4th figure for the pattern will have an

<input type="radio"/> A	even
<input type="radio"/> B	odd

number of triangles

because

- | |
|---|
| <p><input type="radio"/> A adding an even number to an even number will always equal an even number.</p> <p><input type="radio"/> B adding an even number to an even number will always equal an odd number.</p> <p><input type="radio"/> C adding an odd number to an odd number will always equal an even number.</p> <p><input type="radio"/> D adding an odd number to an odd number will always equal an odd number.</p> |
|---|

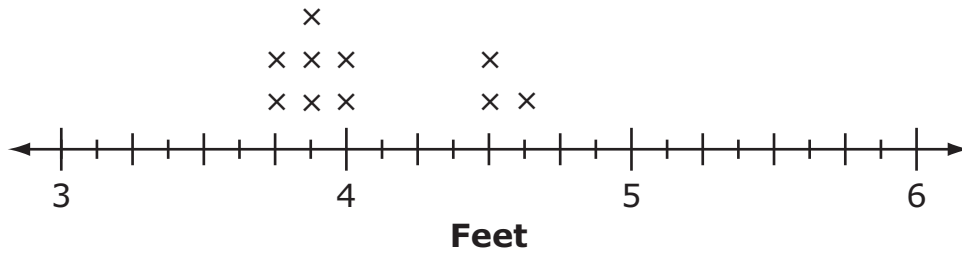
23. Which pair of statements represents $45 = 5 \times 9$?

- Ⓐ Rosie has 45 toy cars. Rosie gives 9 toy cars to her brother.
- Ⓑ Rosie has 5 toy cars. Her brother has 9 more toy cars than Rosie has.
- Ⓒ Rosie has 5 toy cars. Her brother has 9 times as many toy cars as Rosie has.
- Ⓓ Rosie has 5 toy cars. Rosie's brother increases the number of toy cars she has by 45.

24. This question has **two** parts.

A line plot with long jump data is given.

Long Jump Measurements



Allison jumped $\frac{3}{8}$ foot shorter than the farthest jump.

Part A. How far, in feet, did Allison jump?

- (A) $4\frac{1}{8}$
- (B) $4\frac{2}{8}$
- (C) 5
- (D) $5\frac{1}{8}$

Part B. Complete the statement. For the box, fill in the bubble before the distance that is correct.

The difference between the shortest distance jumped

and the farthest distance jumped is

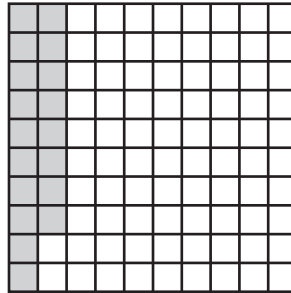
- (A) $\frac{7}{8}$
 - (B) $1\frac{2}{8}$
 - (C) $1\frac{3}{8}$

feet.

25. Select all the shapes that **always** contain perpendicular sides.

- Ⓐ obtuse triangle
- Ⓑ acute triangle
- Ⓒ right triangle
- Ⓓ rectangle
- Ⓔ rhombus
- Ⓕ square

- 26.** Melvin mows a lawn. The fraction of the lawn that Melvin has mowed so far is represented by the shaded model shown.



Melvin will mow $\frac{3}{10}$ more of the lawn before he takes his first break.

What fraction of the lawn will Melvin have mowed when he takes his first break?

	/	/	/	/	/	/	
.
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

27. Select all the expressions that have a value of 32.

- Ⓐ $304 \div 9$
- Ⓑ $259 \div 8$
- Ⓒ $224 \div 7$
- Ⓓ $160 \div 5$
- Ⓔ $100 \div 3$

28. Select $>$, $<$, or $=$ to complete a true comparison for each pair of fractions.

	$>$	$<$	$=$
$\frac{4}{3} \square \frac{6}{5}$	Ⓐ	Ⓑ	Ⓒ
$\frac{6}{2} \square \frac{9}{3}$	Ⓓ	Ⓔ	Ⓕ
$\frac{3}{2} \square \frac{7}{4}$	Ⓖ	Ⓗ	Ⓘ

29. This question has **two** parts.

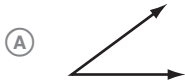
Part A. What is the expanded form of 32,084?

- Ⓐ 30 hundreds + 20 tens + 84 ones
- Ⓑ 30 thousands + 20 hundreds + 84 tens
- Ⓒ $3 \times 10000 + 2 \times 1000 + 8 \times 100 + 4 \times 1$
- Ⓓ $3 \times 10000 + 2 \times 1000 + 8 \times 10 + 4 \times 1$

Part B. What is 30,284 in word form?

- Ⓐ Thirty thousand, two hundred eighty-four
- Ⓑ Three thousand, two hundred eighty-four
- Ⓒ Thirty-two thousand and eighty-four

30. Which is an angle?





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Practice Test Answer Key

The Grade 4 FSA Mathematics Practice Test Answer Key provides the correct response(s) for each item on the practice test. The practice questions and answers are not intended to demonstrate the length of the actual test, nor should student responses be used as an indicator of student performance on the actual test.

1. How many times greater is the value of 5 in 2,573 than the value of 5 in 6,459?

- ☒ 10
☐ 50
☐ 100
☐ 500

2. There are 27 players on a soccer team. They are traveling to a game in 7 cars. There are 4 players in each of the first 6 cars.

How many players on the soccer team will travel in the seventh car?

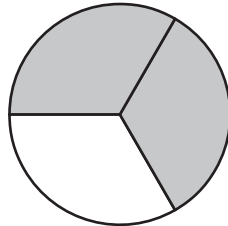
						3
/	/	/	/	/	/	
.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	●
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

3. Determine whether each number is prime or composite.

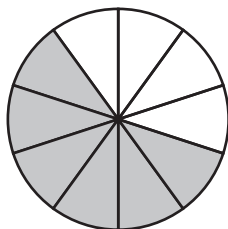
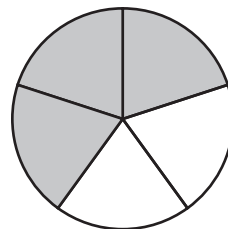
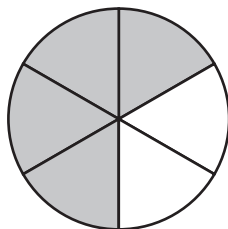
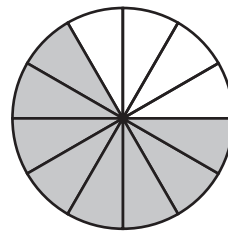
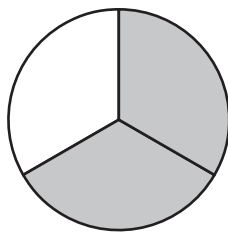
	Prime	Composite
16	<input type="radio"/> A	<input checked="" type="radio"/>
13	<input checked="" type="radio"/>	<input type="radio"/> D
12	<input type="radio"/> E	<input checked="" type="radio"/>
9	<input type="radio"/> G	<input checked="" type="radio"/>
7	<input checked="" type="radio"/>	<input type="radio"/> J

4. Kari represented a fraction by shading parts of the model shown.

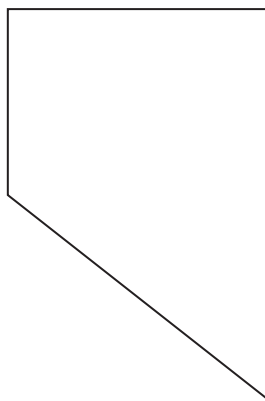
Kari's Fraction Model



Select all the models that have been shaded to represent fractions equivalent to Kari's fraction.



5. In social studies class, Armando learned about the state of Nevada. He drew the picture shown to represent the shape of Nevada.



Which list below correctly describes the kinds of angles that appear to be inside the shape above?

- ☐ Ⓐ 0 acute, 1 obtuse, 3 right
- ☒ Ⓑ 1 acute, 1 obtuse, 2 right
- ☐ Ⓒ 3 acute, 0 obtuse, 1 right
- ☐ Ⓓ 4 acute, 0 obtuse, 0 right

6. This question has **two** parts.

Two numbers are multiplied using the area model shown.

	2,000	+	700	+	90	+	3
7	14,000		4,900		?		21

Part A. Complete the statement. For the box, fill in the bubble before the value that is correct.

The value of the missing number in the area model is

<input type="radio"/> (A) 90
<input type="radio"/> (B) 97
<input checked="" type="radio"/> (C) 630
<input type="radio"/> (D) 2,793
<input type="radio"/> (E) 18,921

Part B. What is the product of the two numbers represented by the area model?

- ☐ (A) 2,793
- ☐ (B) 18,921
- ☒ (C) 19,551
- ☐ (D) 19,558

7. Jing participates in a trivia contest. He completes each question in $\frac{1}{2}$ minute.

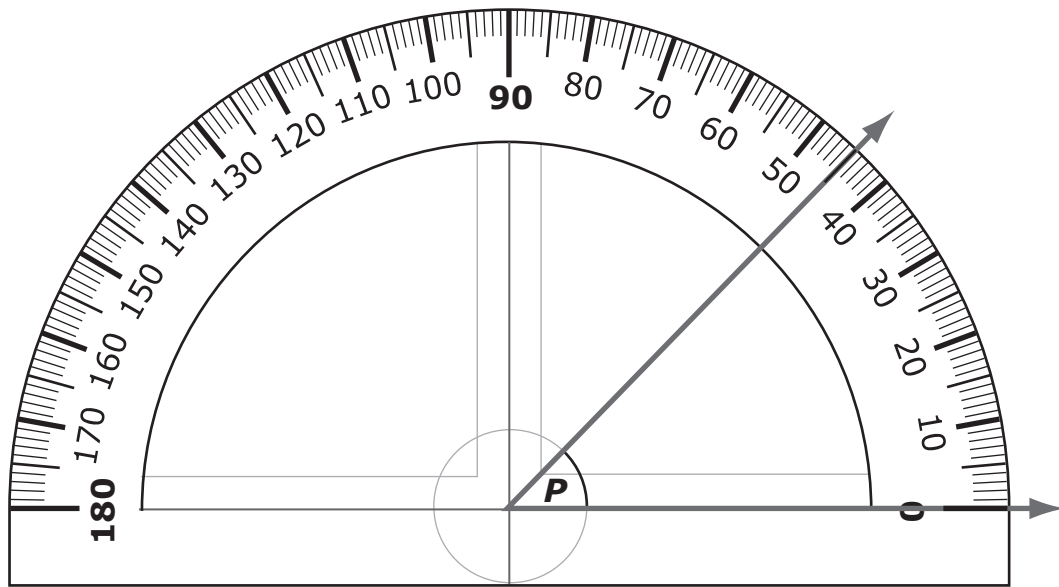
How long does it take for Jing to complete 10 questions?

- ☒ 300 seconds
- ☐ (B) 600 seconds
- ☐ (C) 660 seconds
- ☐ (D) 1,200 seconds

8. Round 245,675 to the nearest hundred thousand.

	2	0	0	0	0	0
	/	/	/	/	/	
•	•	•	•	•	•	•
0	0	●	●	●	●	●
1	1	1	1	1	1	1
2	●	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

9. What is the measure, in degrees ($^{\circ}$), of angle P ?



- ☒ 45°
☐ (B) 55°
☐ (C) 135°
☐ (D) 155°

- How many cups of soil does the container hold?

				3	9	/	4
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3		3	3	3
4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9		9	9	9

11. Which statements correctly compare two numbers?

- ☐ (A) $2,059 > 2,095$
☐ (B) $2,095 < 2,059$
☒ (C) $2,059 < 2,095$
☐ (D) $2,095 > 2,059$
☐ (E) $2,059 = 2,095$



12. A rectangle has a length of 11 feet and a perimeter of 38 feet.

What is the width, in feet, of the rectangle?

						8
	/	/	/	/	/	
.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	●
9	9	9	9	9	9	9

13. What is the value of $1\frac{3}{10}$ in decimal form?

				1	.	3
	/	/	/	/	/	
.	●	.
0	0	0	0	0	0	0
1	1	1	1	●	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	●
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Other correct responses: any equivalent decimal

14. Which equation is true?

- Ⓐ $340 + 20 = 370 + 10$
 Ⓑ $340 + 30 = 350 + 10$
 Ⓒ $340 + 40 = 340 + 10$
☒ $340 + 50 = 380 + 10$

15. Johnny has 17 marbles. Mitchell has 3 times as many marbles as Johnny.

How many marbles does Mitchell have?

					5	1
	/	/	/	/	/	
.
0	0	0	0	0	0	0
1	1	1	1	1	1	●
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	●	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

16. Which figure has a line of symmetry?

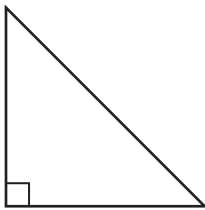
(A)



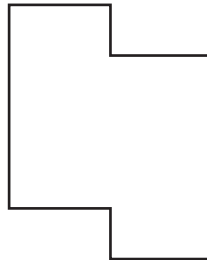
(C)



●



(D)



17. The table shows the distances that Brianna ran on four days.

Day	Distance
Monday	2.04 miles
Tuesday	2.37 miles
Wednesday	2.40 miles
Thursday	2.08 miles

Which comparison about the distances is true?

(A)

Monday's distance is equal to Wednesday's distance.

(B)

Tuesday's distance is less than Monday's distance.

●

Thursday's distance is less than Tuesday's distance.

(D)

Thursday's distance is greater than Wednesday's distance.

18. Select all the equations that show different ways to represent $\frac{5}{8}$.

☒ $\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$

☐ $\frac{5}{8} + \frac{3}{8} = \frac{5}{8}$

☐ $\frac{1}{8} + \frac{5}{8} = \frac{5}{8}$

☒ $\frac{1}{8} + \frac{3}{8} + \frac{1}{8} = \frac{5}{8}$

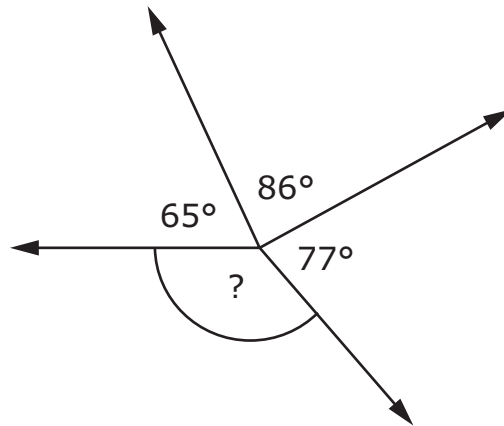
☒ $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$

19. A cheetah jumps 7 meters.

How many centimeters does the cheetah jump?

				7	0	0
	/	/	/	/	/	
.
0	0	0	0	0	●	●
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	●	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

20. What is the measure, in degrees ($^{\circ}$), of the missing angle?



				1	3	2
	/	/	/	/	/	
.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

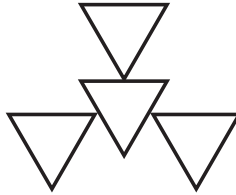
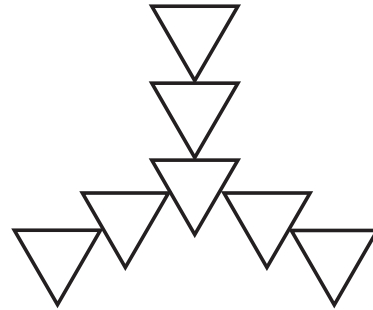
21. An addition statement is shown.

$$\begin{array}{r} 26,\square 54 \\ 18,899 \\ + 12,351 \\ \hline 58,004 \end{array}$$

What is the missing digit that makes the addition statement true?

- ☐ (A) 0
- ☐ (B) 1
- ☒ (C) 7
- ☐ (D) 8

22. A pattern starts with one triangle and follows the rule "Add one triangle to the top, add one triangle to the left, and add one triangle to the right." The first three figures for the pattern are shown.

1st Figure**2nd Figure****3rd Figure**

Complete the statement to describe the 4th figure for the pattern shown. For each box, fill in the bubble before the word or phrase that is correct.

The 4th figure for the pattern will have an

<input checked="" type="radio"/>	even
<input type="radio"/>	odd

number of triangles

because

- | | |
|------------------------------------|---|
| <input type="radio"/> Ⓐ | adding an even number to an even number will always equal an even number. |
| <input type="radio"/> Ⓑ | adding an even number to an even number will always equal an odd number. |
| <input checked="" type="radio"/> Ⓒ | adding an odd number to an odd number will always equal an even number. |
| <input type="radio"/> Ⓓ | adding an odd number to an odd number will always equal an odd number. |

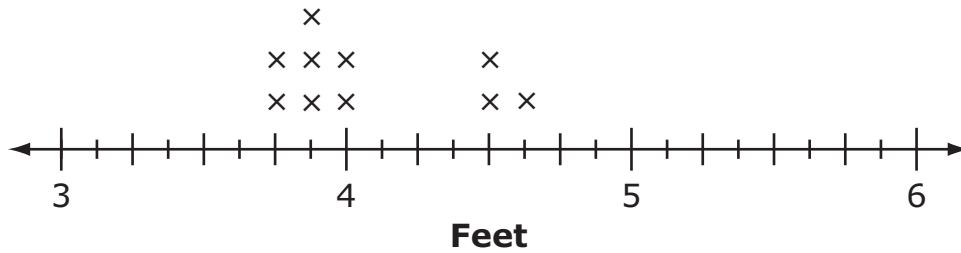
23. Which pair of statements represents $45 = 5 \times 9$?

- Ⓐ Rosie has 45 toy cars. Rosie gives 9 toy cars to her brother.
- Ⓑ Rosie has 5 toy cars. Her brother has 9 more toy cars than Rosie has.
- Rosie has 5 toy cars. Her brother has 9 times as many toy cars as Rosie has.
- Ⓓ Rosie has 5 toy cars. Rosie's brother increases the number of toy cars she has by 45.

24. This question has **two** parts.

A line plot with long jump data is given.

Long Jump Measurements



Allison jumped $\frac{3}{8}$ foot shorter than the farthest jump.

Part A. How far, in feet, did Allison jump?

- (A) $4\frac{1}{8}$
- ☒ $4\frac{2}{8}$
- (C) 5
- (D) $5\frac{1}{8}$

Part B. Complete the statement. For the box, fill in the bubble before the distance that is correct.

The difference between the shortest distance jumped

and the farthest distance jumped is

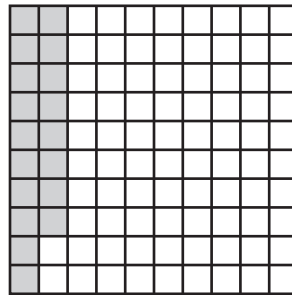
☒ $\frac{7}{8}$
 (B) $1\frac{2}{8}$
 (C) $1\frac{3}{8}$

feet.

25. Select all the shapes that **always** contain perpendicular sides.

- ☐ Ⓐ obtuse triangle
- ☐ Ⓑ acute triangle
- ☒ Ⓒ right triangle
- ☒ Ⓓ rectangle
- ☐ Ⓔ rhombus
- ☒ Ⓕ square

26. Melvin mows a lawn. The fraction of the lawn that Melvin has mowed so far is represented by the shaded model shown.



Melvin will mow $\frac{3}{10}$ more of the lawn before he takes his first break.

What fraction of the lawn will Melvin have mowed when he takes his first break?

	4	8	/	1	0	0
	⊘	⊘	●	⊘	⊘	
⊙	⊙	⊙	⊙	⊙	⊙	⊙
0	0	0	0	0	●	●
1	1	1	1	●	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	●	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	●	8	8	8	8
9	9	9	9	9	9	9

Other correct responses: any equivalent value

27. Select all the expressions that have a value of 32.

☐ (A) $304 \div 9$

☐ (B) $259 \div 8$

☒ $224 \div 7$

☒ $160 \div 5$

☐ (E) $100 \div 3$

28. Select $>$, $<$, or $=$ to complete a true comparison for each pair of fractions.

	$>$	$<$	$=$
$\frac{4}{3} \square \frac{6}{5}$	<input checked="" type="radio"/>	<input type="radio"/> (B)	<input type="radio"/> (C)
$\frac{6}{2} \square \frac{9}{3}$	<input type="radio"/> (D)	<input type="radio"/> (E)	<input checked="" type="radio"/>
$\frac{3}{2} \square \frac{7}{4}$	<input type="radio"/> (G)	<input checked="" type="radio"/>	<input type="radio"/> (I)

29. This question has **two** parts.

Part A. What is the expanded form of 32,084?

- (A) 30 hundreds + 20 tens + 84 ones
- (B) 30 thousands + 20 hundreds + 84 tens
- (C) $3 \times 10000 + 2 \times 1000 + 8 \times 100 + 4 \times 1$
- ☒ $3 \times 10000 + 2 \times 1000 + 8 \times 10 + 4 \times 1$

Part B. What is 30,284 in word form?

- ☒ Thirty thousand, two hundred eighty-four
- (B) Three thousand, two hundred eighty-four
- (C) Thirty-two thousand and eighty-four

30. Which is an angle?

