Texas STAAR 2017 Grade 3 Math

Reference Materials Pages 2 - 5

> Exam Materials Pages 6 - 32

Answer Key Materials Pages 33 - 36

STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS



LENGTH

Customary

- 1 mile (mi) = 1,760 yards (yd)
- 1 yard (yd) = 3 feet (ft)
- 1 foot (ft) = 12 inches (in.)

Metric

- 1 kilometer (km) = 1,000 meters (m)
- 1 meter (m) = 100 centimeters (cm)
- 1 centimeter (cm) = 10 millimeters (mm)

VOLUME AND CAPACITY

Customary

- 1 gallon (gal) = 4 quarts (qt)
- 1 quart (qt) = 2 pints (pt)
- 1 pint (pt) = 2 cups (c)
- 1 cup (c) = 8 fluid ounces (floz)

Metric

1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

- 1 ton (T) = 2,000 pounds (lb)
- 1 pound (lb) = 16 ounces (oz)

Metric

- 1 kilogram (kg) = 1,000 grams (g)
- 1 gram (g) = 1,000 milligrams (mg)

TIME

- 1 year = 12 months
- 1 year = 52 weeks
- 1 week = 7 days
- 1 day = 24 hours
- 1 hour = 60 minutes
- 1 minute = 60 seconds

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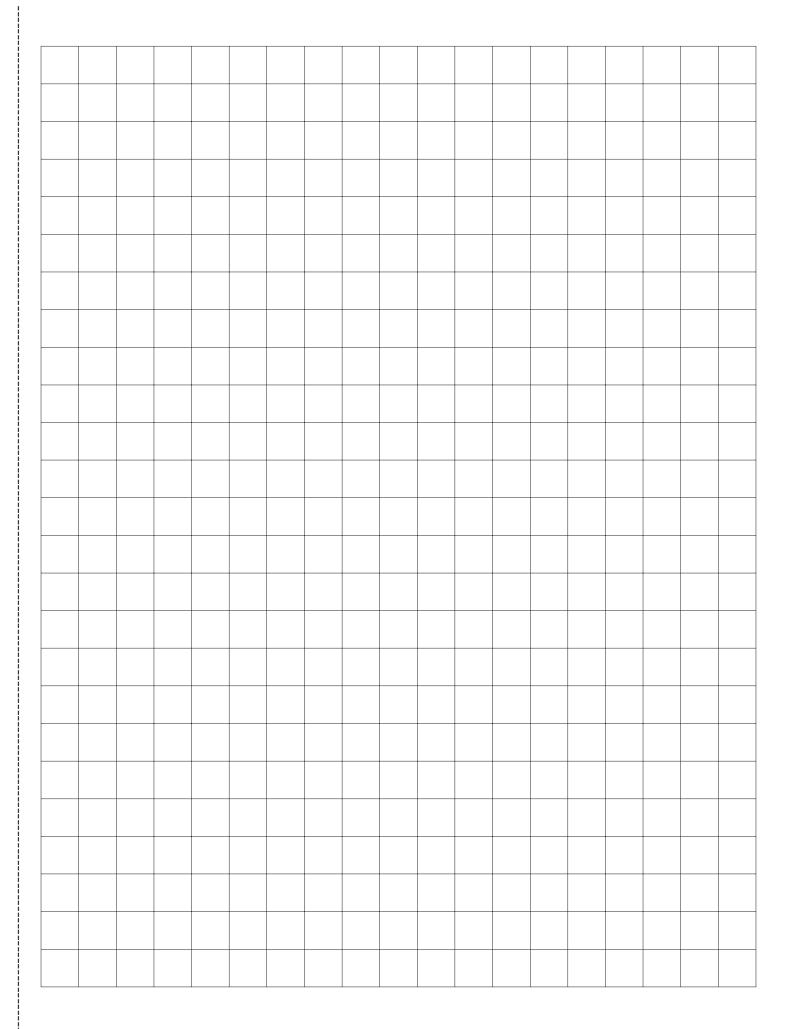
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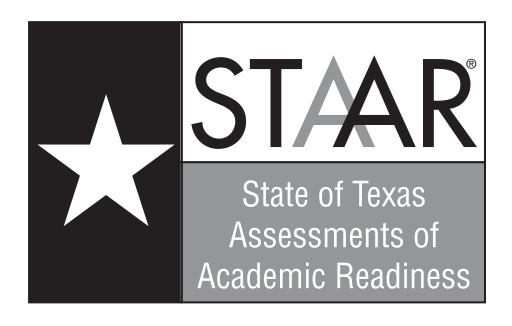
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STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS

This page shows only the metric ruler.





GRADE 3Mathematics

Administered May 2017 RELEASED

DIRECTIONS

Read each question carefully. For a multiple-choice question, determine the best answer to the question from the four answer choices provided. For a griddable question, determine the best answer to the question. Then fill in the answer on your answer document.

- 1 An art teacher had 736 crayons.
 - She threw away 197 broken crayons.
 - Then she bought 150 more crayons.

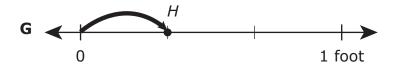
Which equation shows how to find the number of crayons the art teacher has now?

2 The number line represents a distance of 1 foot.



On which of these number lines does point H represent $\frac{1}{2}$ foot?

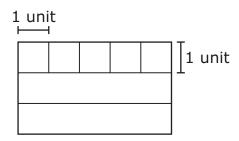








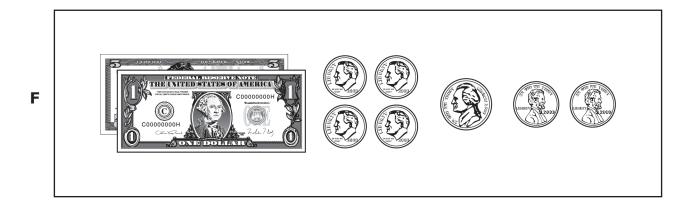
3 A model of a rectangular bulletin board is shown. The top row has been divided into squares of equal size.



The rest of the model will also be divided into squares of the same size. What is the area in square units represented by this model?

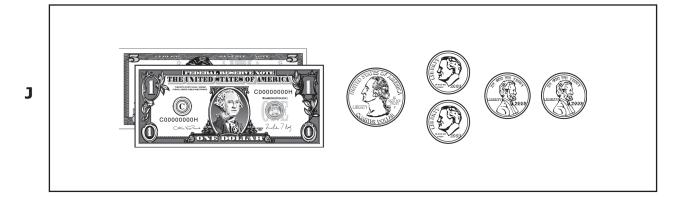
- **A** 8 square units
- **B** 15 square units
- C 12 square units
- **D** 16 square units

4 Inez did laundry. She found \$6.47 in the pocket of her dad's pants. Which of the following could NOT represent the amount of money Inez found?









- **5** Aaron will place 99 towels on a shelf. He will make 9 equal stacks.
 - How many towels will be in each stack?
 - Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

6 These six basketball jerseys are hanging on a wall. Lori's favorite basketball players each have an odd number on their jerseys.



Which list shows only the numbers of Lori's favorite basketball players?

- **F** 10, 21, 25, 33
- **G** 21, 25, 33
- **H** 21, 50, 52
- **J** 10, 33, 50, 52

- **7** Erika's goal is to practice playing her guitar for 300 minutes this week.
 - On Sunday she practiced for 117 minutes.
 - On Tuesday she practiced for 58 minutes.

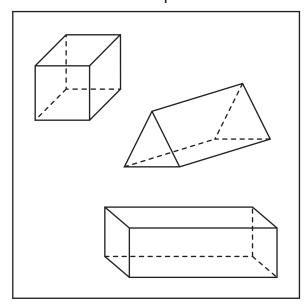
How many more minutes does Erika need to practice in order to meet her goal?

- A 125 minutes
- **B** 235 minutes
- C 475 minutes
- **D** 175 minutes

8 Zayne sorted some figures into two groups.

Group X

Group Y



Which statement about the figures Zayne sorted is true?

- **F** All the figures in Group X are cylinders.
- **G** All the figures in Group X are cones.
- $oldsymbol{H}$ All the figures in Group Y are prisms.
- **J** All the figures in Group Y are rectangular prisms.

9 Gina has 42 mushrooms to put into 6 salads. She wants to put the same number of mushrooms in each salad.

Which strip diagram shows how to find the number of mushrooms that Gina should put in each salad?

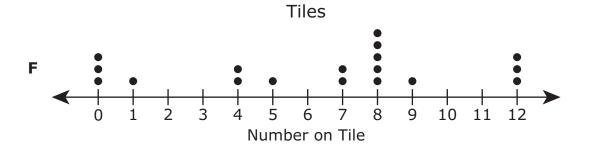
A	7	7	7	7	7	7

В	6	6	6	6	6	6

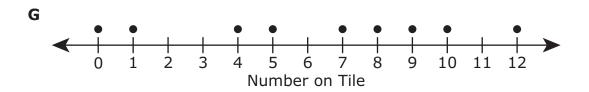
С	42	42	42	42	42	42

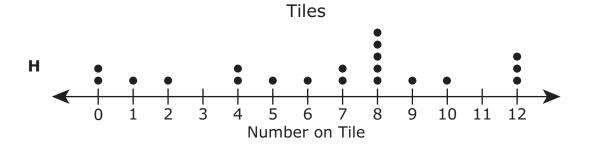
10 Merlin had a bag of tiles. Each tile was labeled with a number. Merlin pulled one tile out of the bag and recorded the number on that tile. He repeated this 18 times. The numbers on the tiles Merlin pulled are shown in the list.

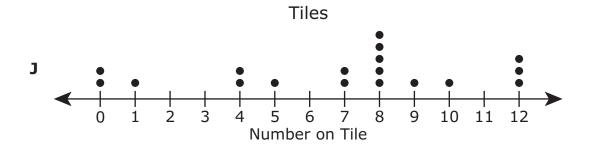
Which dot plot represents the numbers on the tiles Merlin pulled out of the bag?



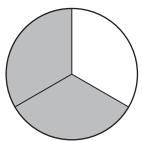
Tiles

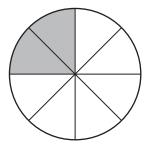






11 The models shown are the same size and are each divided into equal parts. The models are shaded to show two fractions.





Based on the models, which statement is true?

- **A** $\frac{1}{3}$ is greater than $\frac{6}{8}$, because thirds are larger than eighths
- **B** $\frac{2}{3}$ is greater than $\frac{2}{8}$, because 2 shaded parts out of 3 parts is greater than 2 shaded parts out of 8 parts
- **C** $\frac{1}{3}$ is less than $\frac{2}{8}$, because 1 shaded part out of 3 parts is less than 2 shaded parts out of 8 parts
- **D** $\frac{2}{3}$ is less than $\frac{2}{8}$, because thirds are smaller than eighths

12 A baseball league bought 9 boxes of baseballs. Each box contained 36 baseballs.

How many baseballs did the league buy?

- **F** 324
- **G** 274
- **H** 84
- **J** 34

13 The table shows the land areas of some states.

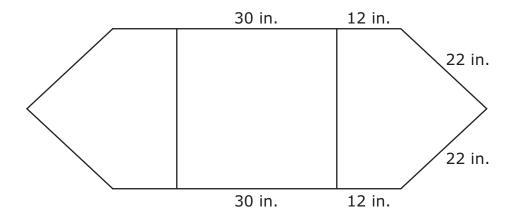
Land Areas

State	Area (square miles)
Arkansas	52,068
Louisiana	43,204
Alabama	50,744
Oklahoma	68,667
Mississippi	46,907

Which comparison of two land areas is NOT true?

- **A** The land area of Alabama > the land area of Mississippi
- **B** The land area of Arkansas < the land area of Alabama
- **C** The land area of Oklahoma > the land area of Louisiana
- **D** The land area of Louisiana < the land area of Mississippi

14 Holly made a poster using two congruent pentagons and a square.



What is the perimeter of the poster in inches?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

15 Kacie sold bracelets at a store. She sold 3 bracelets for 1 dollar.

Which table represents the numbers of bracelets that would be sold for different numbers of dollars?

Bracelets Sold

	Number of Dollars	Number of Bracelets
Α	1	3
	2	4
	4	6
	5	10

Bracelets Sold

	Number of Dollars	Number of Bracelets
С	3	1
	4	2
	6	4
	10	5

Bracelets Sold

	Number of Dollars	Number of Bracelets
В	1	3
	2	6
	4	12
	5	15

Bracelets Sold

	Number of Dollars	Number of Bracelets
D	3	1
	6	2
	12	4
	15	5

- **16** Which of these describes the number 35,824?
 - **F** The sum of three thousands, five thousands, eight hundreds, two tens, and four ones
 - **G** The sum of thirty-five hundreds, eight tens, and twenty-four ones
 - **H** The sum of three ten thousands, five thousands, eight hundreds, two tens, and four ones
 - **J** The sum of five ten thousands, three thousands, eight hundreds, two tens, and four ones

17 Kevin and his two brothers ate a bowl of grapes. There were 27 grapes in the bowl. Each boy ate the same number of grapes.

What is the number of grapes each boy ate?

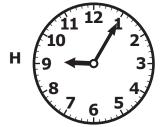
- **A** 54
- **B** 81
- **C** 7
- **D** 9

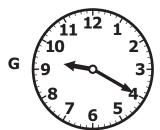
18 Debra and Shelly started running a race at 9:00 A.M. Debra finished in 45 minutes.

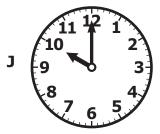




Shelly finished the race 20 minutes after Debra did. Which clock shows the time Shelly finished the race?







19 The table shows the numbers of puzzle pieces in four puzzles. Derek put together the two puzzles that had the greatest numbers of pieces.

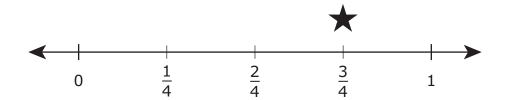
Puzzle Pieces

Puzzle	Number of Pieces
Lion	402
Boat	498
Garden	419
Waterfall	473

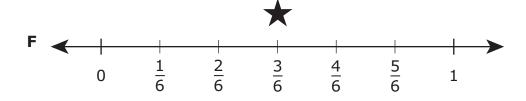
What is the total number of pieces in these two puzzles?

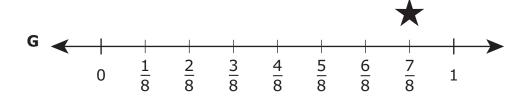
- **A** 961
- **B** 900
- **C** 861
- **D** Not here

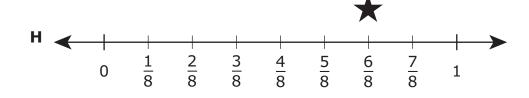
20 Eddie marked the fraction $\frac{3}{4}$ with a star on the number line shown.

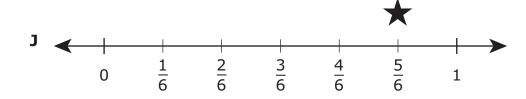


Which of these number lines shows a fraction equivalent to $\frac{3}{4}$ marked with a star?







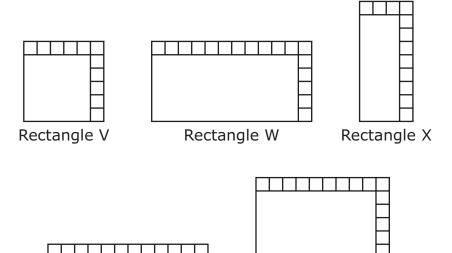


21 A classroom currently contains 6 rows of chairs with 5 chairs per row. On parents' night the classroom had twice as many chairs.

Which number sentence can be used to find the number of chairs in the classroom on parents' night?

- **A** 6 + 5 + 2 =
- $\mathbf{B} \ \ 6 \times 5 \times 2 = \boxed{}$
- **C** $6 \times 5 \div 2 =$
- **D** $6 + 5 \times 2 =$

22 Each rectangle shown will be covered with equal-size squares. Some of the squares have been placed as shown.



Rectangle Z

 $\square = 1$ square centimeter

Rectangle Y

Which of these rectangles have an area of 36 square centimeters?

- **F** Rectangles V, W, X, Y, and Z
- **G** Rectangles X and Y only
- $oldsymbol{H}$ Rectangles W and Z only
- J Rectangles V, X, and Y only

23 Scott has 28 toy cars to put on 4 shelves. He wants to put the same number of cars on each shelf.

How many toy cars should Scott put on each shelf?

- **A** 32, because 4 + 28 = 32
- **B** 112, because $28 \times 4 = 112$
- **C** 7, because $4 \times 7 = 28$
- **D** 24, because 28 24 = 4

24 The graph shows the number of rings Mrs. Adams sold during six weeks at her jewelry store.

Rings Sold

Week 1	ÖÖÖÖÖ
Week 2	355555
Week 3	ÖÖÖÖ
Week 4	000000000
Week 5	55555
Week 6	3000

Each means 6 rings sold.

What is the total number of rings Mrs. Adams sold during weeks 4, 5, and 6?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

25 Mr. Morales gives bonus points when a challenge question on a test is answered correctly. The table shows the relationship between test scores before and after Mr. Morales gives the bonus points.

Test Scores

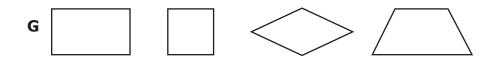
Test Score Before Bonus Points	Test Score After Bonus Points
77	81
79	83
81	85
83	87

Which of these describes the relationship shown in the table?

- **A** The test score before bonus points minus 2 equals the test score after bonus points.
- **B** The test score before bonus points minus 4 equals the test score after bonus points.
- **C** The test score before bonus points plus 2 equals the test score after bonus points.
- **D** The test score before bonus points plus 4 equals the test score after bonus points.

26 In which set do all the figures appear to be either a rhombus, parallelogram, trapezoid, rectangle, or square?







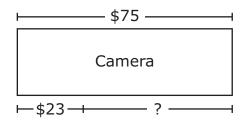


- 27 The list shows three clues about a number.
 - The number is less than 6,538.
 - The number is greater than 6,355.
 - The number has a digit less than 5 in the hundreds place.

Which of these could be the number described?

- **A** 6,549
- **B** 6,268
- **C** 6,519
- **D** 6,449

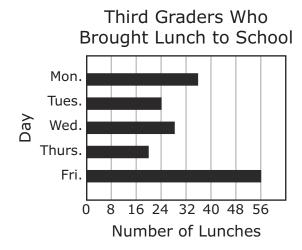
28 Timothy wants to buy a camera that costs \$75. He has saved \$23, as shown in the model.



Which equation can be used to find how much more money Timothy needs in order to buy the camera?

- **F** \$75 + \$52 =
- **G** \$75 + \$23 =
- **H** \$75 \$23 =
- **J** \$52 \$23 =

29 The bar graph shows the number of third graders who brought lunch to school each day last week.



Which table best represents the data in the graph?

Third Graders Who Brought Lunch to School

Day	Number of Lunches	
Monday	36	
Tuesday	24	
Wednesday	28	
Thursday	20	
Friday	56	

Third Graders Who Brought Lunch to School

В	Day	Number of Lunches	
D	Monday	32	
Tuesday		24	
	Wednesday	24	
	Thursday	16	
	Friday	56	

Third Graders Who Brought Lunch to School

c	Day	Number of Lunches	
	Monday	40	
	Tuesday	24	
	Wednesday	32	
	Thursday	24	
	Friday	56	

Third Graders Who Brought Lunch to School

D	Day	Number of Lunches	
	Monday	34	
	Tuesday	24	
	Wednesday	26	
	Thursday	18	
	Friday	56	

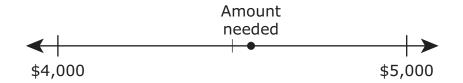
A

30 A triangle has a perimeter of 18 units. Each side of this triangle is the same length.

What is the length of one side of the triangle in units?

- **F** 3 units
- **G** 6 units
- **H** 19 units
- **J** 54 units

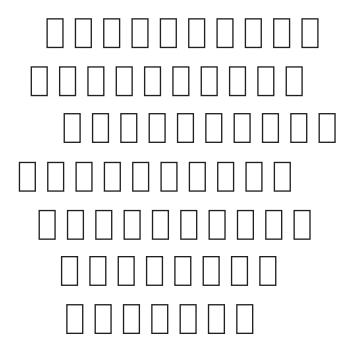
31 The point on the number line represents the amount of money needed to build a garage.



Which statement best describes the amount of money needed to build the garage?

- **A** The amount of money needed is more than \$5,000.
- **B** The amount of money needed is less than \$4,000.
- **C** The amount of money needed is about \$5,000, because the point is closer to \$5,000.
- **D** The amount of money needed is about \$4,000, because the point is closer to \$4,000.

32 In math class 5 students split up 65 flash cards to practice their math facts. The picture shows the total number of flash cards. Each student took the same number of flash cards.



What is the number of flash cards each student took?

- **F** 13
- **G** 15
- **H** 70
- **J** 60

ltem Number	Reporting Category	Readiness or Supporting	Content Student Expectation	Correct Answer
1	2	Readiness	3.5(A)	В
2	1	Supporting	3.7(A)	J
3	3	Readiness	3.6(C)	В
4	4	Supporting	3.4(C)	Н
5	2	Readiness	3.4(K)	11
6	1	Supporting	3.4(I)	G
7	2	Readiness	3.4(A)	А
8	3	Readiness	3.6(A)	Н
9	2	Readiness	3.5(B)	А
10	4	Readiness	3.8(A)	J
11	1	Readiness	3.3(H)	В
12	2	Supporting	3.4(G)	F
13	1	Readiness	3.2(D)	В
14	3	Readiness	3.7(B)	196
15	2	Readiness	3.5(E)	В
16	1	Readiness	3.2(A)	Н
17	2	Supporting	3.4(F)	D
18	3	Supporting	3.7(C)	F
19	2	Readiness	3.4(A)	D
20	1	Readiness	3.3(F)	Н
21	2	Readiness	3.5(B)	В
22	3	Readiness	3.6(C)	J
23	2	Supporting	3.4(J)	С
24	4	Supporting	3.8(B)	108
25	2	Readiness	3.5(E)	D
26	3	Supporting	3.6(B)	G
27	1	Readiness	3.2(D)	D
28	2	Readiness	3.5(A)	Н
29	4	Readiness	3.8(A)	А
30	3	Readiness	3.7(B)	G
31	1	Supporting	3.2(C)	С
32	2	Supporting	3.4(H)	F

2017 STAAR Grade 3 Math Rationales

Item#	Response A/F	Response B/G	Response C/H	Response D/J
1	A is incorrect because 197 should be subtracted from 736, and 150 should be added, not subtracted.	B is correct because 197 should be subtracted from 736, and 150 should be added.	C is incorrect because 197 should be subtracted from 736, not added, and 150 should be added.	D is incorrect because 197 should be subtracted from 736, not added, and 150 should be added, not subtracted.
2	F is incorrect because point H is not halfway between 0 and 1 foot. It is about 1/4 of the way.	G is incorrect because point H is not halfway between 0 and 1 foot. It is 1/3 of the way.	H is incorrect because point H is not halfway between 0 and 1 foot. It is 1/4 of the way.	J is correct because point H is halfway between 0 and 1 foot.
3	A is incorrect because the area is $5 \times 3 = 15$, not $5 + 3 = 8$.	B is correct because there are 5 square units in the first row, and there are three rows. 5 x 3 = 15.	C is incorrect because the area is 5 x 3 = 15, not 4 x 3 = 12.	D is incorrect because the area is 5 x 3 = 15, not 4 x 4 = 16.
4	F is incorrect because it represents \$6.47.	G is incorrect because it represents \$6.47.	H is correct because it represents \$6.37, not \$6.47.	J is incorrect because it represents \$6.47.
5	A; The correct answer is 11 because 99 ÷ 9 = 11.	B; Students may have multiplied 99 x 9 = 891 or added 99 + 9 = 108 or subtracted 99 - 9 = 90.		
6	F is incorrect because it lists 10, an even number.	G is correct because it lists all the odd numbers from the jerseys.	H is incorrect because it lists 50 and 52, both even numbers.	J is incorrect because it lists 10, 50, and 52, all even numbers.
7	A is correct because 117 + 58 = 175 and 300 - 175 = 125.		C is incorrect because 117 and 58 were added to 300. They should be subtracted from 300.	D is incorrect because 117 and 58 were added to get 175, but 175 was not subtracted from 300.
8	F is incorrect because only one figure in Group X is a cylinder.	G is incorrect because only one figure in Group X is a cone.	H is correct because all the figures in Group Y are prisms.	J is incorrect because only two of the figures in Group Y are rectangular prisms.
9	A is correct because 7 x 6 = 42.	B is incorrect because 6 x 6 = 36, not 42.	C is incorrect because 42 x 6 = 252, not 42.	D is incorrect because 7 x 7 = 49, not 42.
10	F is incorrect because it shows an extra dot on 0 and no dot on 10.	G is incorrect because it only shows 9 dots. It does not show the additional dots when numbers are in the list more than once.	H is incorrect because it shows 20 dots. There is an extra dot on 2 and on 6.	J is correct because it shows all 18 dots in the correct place.
11	A is incorrect because 1/3 is not greater than 6/8.	B is correct because 2/3 is greater than 2/8.	C is incorrect because 1/3 is not less than 2/8.	D is incorrect because 2/3 is not less than 2/8.
12	F is correct because 9 x 36 = 324.	G is incorrect because 9 x 36 = 324, not 274.	H is incorrect because 9 x 36 = 324, not 84.	J is incorrect because 9 x 36 = 324, not 34.
13	A is incorrect because 50,744 is greater than 46,907. This comparison is true.	B is correct because 52,068 is not less than 50,744. This comparison is not true.	C is incorrect because 68,667 is greater than 43,204. This comparison is true.	D is incorrect because 43,204 is less than 46,907. This comparison is true.
14	F; The correct answer is 196 because 30 + 12 + 22 + 22 + 12 + 30 + 12 + 22 + 22 + 12 = 196.	G; Students may have forgotten the left side of the figure and only added the numbers showing 30 + 12 + 22 + 22 + 12 + 30 = 128.		

2017 STAAR Grade 3 Math Rationales

Item#	Response A/F	Response B/G	Response C/H	Response D/J
15	A is incorrect because it	B is correct because it shows	C is incorrect because it	D is incorrect because it
	shows a pattern of adding 2 to		shows a pattern of subtracting	shows a pattern of dividing all
	most of the number of dollars:	the number of dollars by 3: 1 x	2 from most of the number of	of the number of dollars by 3:
	1 + 2 = 3; $2 + 2 = 4$; and $4 + 2$	3 = 3; 2 x 3 = 6; 4 x 3 = 12;	dollars: 3 - 2 = 1; 4 - 2 = 2;	$3 \div 3 = 1$; $6 \div 3 = 2$; $12 \div 3 =$
	= 6.	and 5 x 3 = 15.	and $6 - 2 = 4$.	4; and $15 \div 3 = 5$.
16	F is incorrect because (3 x	G is incorrect because (35 x	H is correct because (3 x	J is incorrect because (5 x
	1,000) + (5 x 1,000) + (8 x	100) + (8 x 10) + (24 x 1) =	10,000) + (5 x 1,000) + (8 x	10,000) + (3 x 1,000) + (8 x
	100) + (2 x 10) + (4 x 1) =	3,604.	100) + (2 x 10) + (4 x 1) =	100) + (2 x 10) + (4 x 1) =
	8,824.		35,824.	53,824.
17	A is incorrect because 27	B is incorrect because 27	C is incorrect because 27 ÷ 3	D is correct because 27 ÷ 3 =
	should be divided by 3, not	should be divided by 3, not	= 9, not 7.	9.
	multiplied by 2.	multiplied.		
18	F is correct because Debra	G is incorrect because it only	H is incorrect because Debra	J is incorrect because Debra
	finished 45 minutes after the	shows Shelly's time 20	finished 45 minutes after the	finished 45 minutes after the
	race started at 9:45 and Shelly		1	race started at 9:45 and Shelly
	finished 20 minutes after	at 9:20.	finished 20 minutes after	finished 20 minutes after
	Debra at 10:05.		Debra at 10:05, not 9:05.	Debra at 10:05, not 10:00.
19	A is incorrect because the two	R is incorrect because the two	C is incorrect because the two	D is correct because the two
19	largest puzzles are 498 + 473	largest puzzles are not 402 +		largest puzzles are 498 + 473
	= 971, not 961.	498 = 900.	= 971, not 861.	= 971, which is "Not here."
	- 771,1101 701.	1470 – 700.	- 771,1101 001.	- 771, WHICH IS NOTHERE.
20	F is incorrect because 3/6 ≠	G is incorrect because 7/8 ≠	H is correct because 6/8 =	J is incorrect because 5/6 ≠
	3/4.	3/4.	3/4.	3/4.
21	A is incorrect because 6	B is correct because 6 should	C is incorrect because 6	D is incorrect because 6
	should be multiplied by 5, not	be multiplied by 5 and then	should be multiplied by 5 and	should be multiplied by 5, not
	added, and then multiplied by	multiplied by 2.	then multiplied by 2, not	added, and then multiplied by
	2, not added.		divided.	2.
22	F is incorrect because it lists	G is incorrect because it does	H is incorrect because it lists	J is correct because
	the two rectangles with an	not list Rectangle V with an	the two rectangles with an	Rectangles V, X, and Y have
	area that is not 36. The area	area of 6 x 6 = 36.	area that is not 36. The area	an area of 36 square
	of Rectangle W is 12 x 6 = 72,			centimeters.
	and the area of Rectangle Z is		and the area of Rectangle Z is	
23	10 x 8 = 80. A is incorrect because 28	B is incorrect because 28	10 x 8 = 80. C is correct because 28 ÷ 4 =	D is incorrect because 28
23	should be divided by 4, not	should be divided by 4, not	7, and $4 \times 7 = 28$ is in the	should be divided by 4, not
	added to 4.	multiplied by 4.	same fact family.	subtracted by 4.
24	F; The correct answer is 108.	G; Students may have used 6	oamo luot lumily.	
-	Week 4 has a total of 8 x 6 =	$\div 2 = 2, \text{ not } 6 \div 2 = 3, \text{ for a}$		
	48. Week 5 has a total of 5 x 6			
	= 30, and $30 + 3 = 33$. Week 6			
	has a total of $4 \times 6 = 24$, and			
	24 + 3 = 27, (48 + 33 + 27 =			
	108).			
25	A is incorrect because the	B is incorrect because the	C is incorrect because the	D is correct because the table
	table shows a pattern of	table shows a pattern of	table shows a pattern of	shows a pattern of adding 4:
	adding 4, not a pattern of	adding 4, not a pattern of	adding 4, not a pattern of	77 + 4 = 81; 79 + 4 = 83; 81 +
	subtracting 2: 77 - 2 ≠ 81; 79 -	subtracting 4: 77 - 4 ≠ 81; 79 -	adding 2: 77 + 2 ≠ 81; 79 + 2	4 = 85; and $83 + 4 = 87$.
		$4 \neq 83$; 81 - 4 \neq 85; and 83 - 4		
	<i>≠</i> 87.	<i>≠</i> 87.	<i>≠</i> 87.	

2017 STAAR Grade 3 Math Rationales

Item #	Response A/F	Response B/G	Response C/H	Response D/J
26	F is incorrect because the last	G is correct because it shows	H is incorrect because the	J is incorrect because the
	figure is not a rhombus,	a rectangle, square, rhombus,	third figure is not a rhombus,	second figure is not a
	parallelogram, trapezoid,	and trapezoid.	parallelogram, trapezoid,	rhombus, parallelogram,
	rectangle, or square.		rectangle, or square.	trapezoid, rectangle, or
				square.
27	A is incorrect because 6,549	B is incorrect because 6,268	C is incorrect because 6,519	D is correct because 6,449
	does not satisfy the first clue.	does not satisfy the second	does not satisfy the third clue.	satisfies all three clues. 6,449
	6,549 is not less than 6,538; it	clue. 6,268 is not greater than	6,519 does not have a digit	is less than 6,538; is greater
	is greater than 6,538.	6,355; it is less than 6,355.	less than 5 in the hundreds	than 6,355; and has a digit
			place; it is equal to 5.	less than 5 in the hundreds
				place.
28	F is incorrect because 23	G is incorrect because 23	H is correct because 23	J is incorrect because 23
	should be subtracted from 75,	should be subtracted from 75,	should be subtracted from 75	should be subtracted from 75,
	not added, to find how much	not added to 52, to find how	to find how much more money	not 52, to find how much more
	more money is needed.	much more money is needed.	is needed.	money is needed.
20	A is someof because it above	D is incomed because	C is in some at his source	D is incomed because
29	A is correct because it shows	B is incorrect because	C is incorrect because	D is incorrect because
	the data from the graph.	Monday shows 36, not 32;	Monday shows 36, not 40;	Monday shows 36, not 34;
		Wednesday shows 28, not 24;	Wednesday shows 28, not 32;	Wednesday shows 28, not 26;
		and Thursday shows 20, not	and Thursday shows 20, not	and Thursday shows 20, not
20	F is incorrect because 18 ÷ 3	16. G is correct because 18 ÷ 3 =	24. H is incorrect because 18 ÷ 3	18. J is incorrect because 18
30				
	= 6, not 3.	6.	= 6, not 19.	should be divided by 3, not
21	A is incorrect because the	B is incorrect because the	C is correct because the point	multiplied by 3. D is incorrect because the
31				
	point is not past 5,000.	point is not before 4,000.	is past the halfway mark and	point is past the halfway mark
00	E !	O to to consist to the first	is closer to 5,000.	and is farther from 4,000.
32	F is correct because $65 \div 5 =$	G is incorrect because 65 ÷ 5	H is incorrect because 65	J is incorrect because 65
	13.	= 13, not 15.	should be divided by 5, not	should be divided by 5, not
			added to 5.	subtracted by 5.