



THIRD SPACE
LEARNING

3rd Grade Arizona State Practice Math Test

Arizona Practice Test Grade 3

Grade 3

Questions

Name:

Class:

Date:

Score:

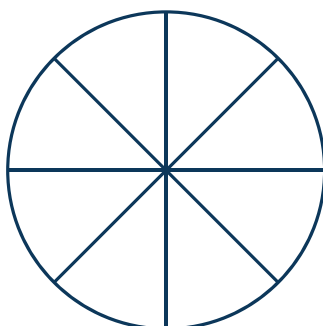
SESSION 1:

20 Questions

Standard: 3.NF.A.1

DOK 1

- 1 The circle below is divided into 8 equal parts. Shade in $\frac{3}{8}$ of the circle.



Standard: 3.NF.A.3b

DOK 2

2 Select the fractions that are equivalent to $\frac{2}{6}$?

A. $\frac{1}{2}$

B. $\frac{3}{12}$

C. $\frac{1}{6}$

D. $\frac{1}{4}$

E. $\frac{1}{3}$

F. $\frac{4}{12}$

Standard: 3.OA.B.5

DOK 2

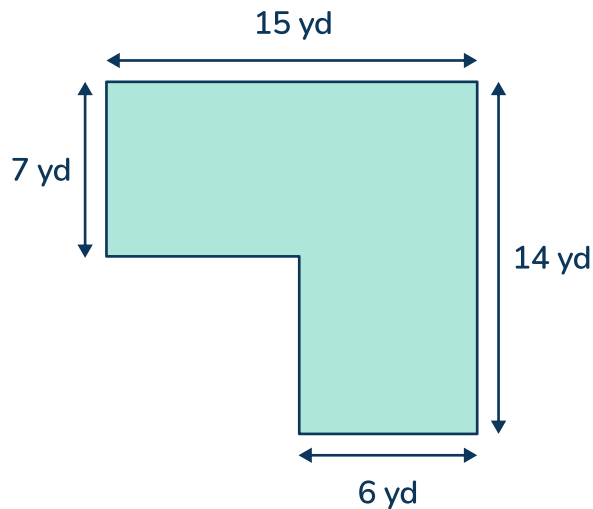
3 Joanne has 6 boxes of pencils. Each box has 12 pencils in it. Write an expression that can be used to find the total number of pencils that Joanne has. Use the space below to write your answer.

 Answer

Standard: 3.MD.C.7.d

DOK 3

- 4 Julie moved into a new house, and the diagram below shows the shape of her new room.



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

- A. 42 yd^2
- B. 58 yd^2
- C. 189 yd^2
- D. 147 yd^2

Standard: 3.NBT.A.3

DOK 1

- 5 Which number makes the equation true? Write your answer on the space.

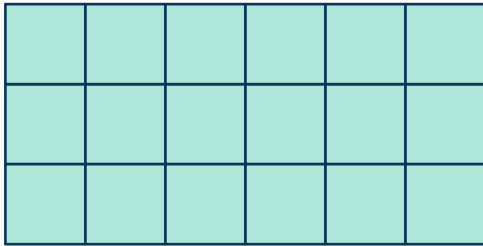
$90 \times 6 = \underline{\hspace{2cm}}$

Standard: 3.OA.A1

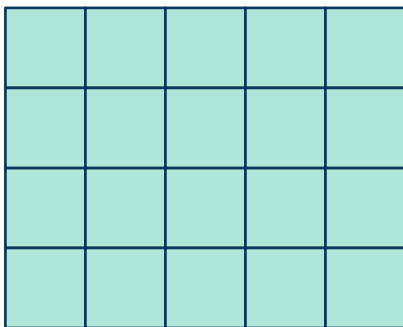
DOK 1

6 Which array represents 4×6 ?

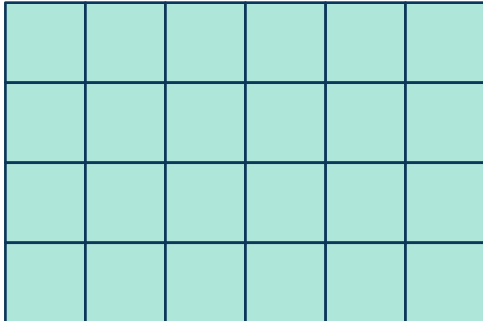
A.



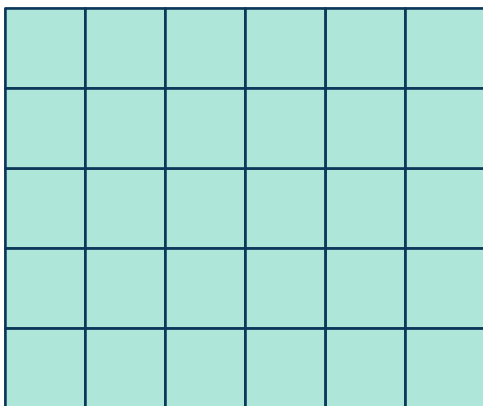
B.



C.



D.



Standard: 3.MD.A.2

DOK 2

- 7 The local township wants to replenish the sand on the beaches. They have 6 bags of sand to replenish the beach between the 5th Avenue entrance and the 6th Avenue entrance. The mass of each bag is 12 kilograms. What is the total mass, in kilograms, of all the bags of sand?

Write your answer in the space below:

 Answer

Standard: 3.NBT.A.1

DOK 2

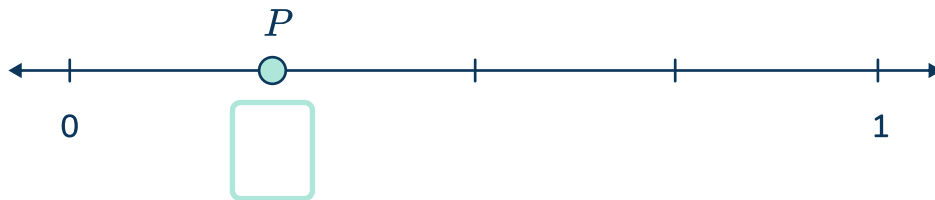
- 8 The distance from Yellowstone National Park to Glacier National Park is 367 miles. What is 367 rounded to the nearest hundred? Write your answer in the space below.

 Answer

Standard: 3.NF.A.2b

DOK 2

- 9 Which fraction is represented by point P on the number line shown below?
Place your answer in the space provided.



Standard: 3.G.A.2

DOK 2

- 10 Kaitlin has a large rectangular piece of material that she cuts into 6 equal pieces. She uses one of the pieces to make a headband. What fraction of the material did she use to make the headband?

- A. $\frac{1}{5}$
- B. $\frac{1}{6}$
- C. $\frac{1}{4}$
- D. $\frac{1}{2}$

Standard: 3.OA.A.4

DOK 2

- 11 Find the missing number in the equation.

$$45 \div \square = 5$$

Standard: 3.OA.D.10

DOK 3

- 12 Use the given expression to select the best equation to find the difference.

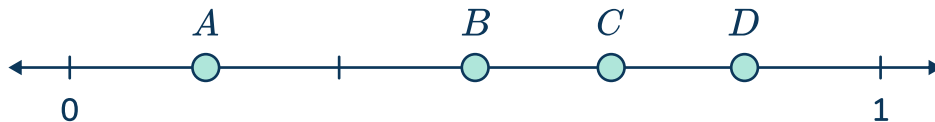
$$712 - 297$$

- A. $600 - 300 = 300$
- B. $700 - 300 = 400$
- C. $700 - 400 = 300$
- D. $700 - 200 = 500$

Standard: 3.NF.A.2.b

DOK 2

- 13 The distance between Sherly's house and her friend's house is 1 mile. On the way to her friend's house, she stops at an ice cream shop $\frac{5}{6}$ of a mile from her home. What point on the number line shows the location of the ice cream place?



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

Standard: 3.OA.B.5

DOK 3

- 14 Last week, Gina ran 4 miles each day for 6 days. This week, she ran 4 miles each day for 4 days. Which expression can be used to represent the total amount of miles Gina ran in the two weeks?

- A. $4 + (6 + 4)$
- B. $4 \times (6 \times 4)$
- C. $4 \times (6 + 4)$
- D. $(4 + 6) \times (4 + 4)$

Standard: 3.MD.A.2

DOK 2

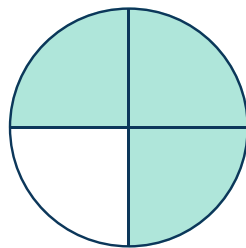
- 15 The water jugs in the office hold about 9 gallons of water. There are 12 offices that have water jugs. Use the space below to find the total number of gallons of water in all offices.

 Answer

Standard: 3.NF.A.3d

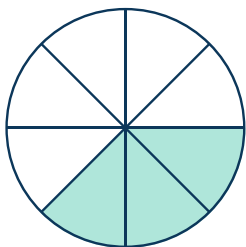
DOK 1

- 16 The shaded part of the model below represents a fraction.

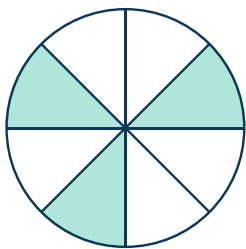


Which model is shaded to represent an equivalent fraction to the model given?

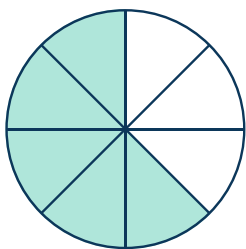
A.



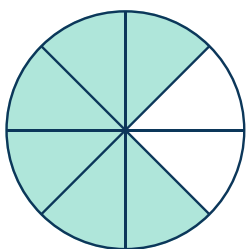
B.



C.



D.

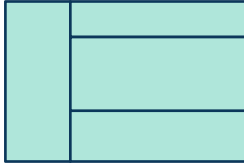


Standard: 3.G.A.2

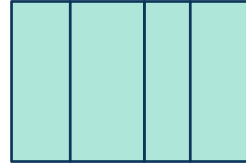
DOK 2

- 17 Christopher divided a rectangle into four equal parts. Which one of the rectangles represents the correct one?

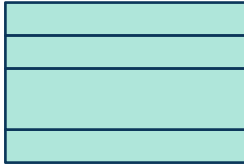
A.



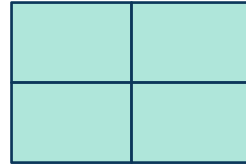
C.



B.



D.



Standard: 3.OA.A.4

DOK 2

- 18 Write the numbers that make the equation true.

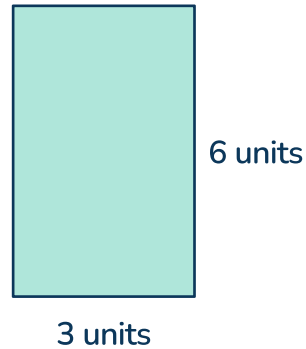
$$7 \times \underline{\hspace{2cm}} = 42$$

$$42 \div 7 = \underline{\hspace{2cm}}$$

Standard: 3.MD.C.5b

DOK 3

- 19 Kellie draws a rectangle in her notebook. She labels two of the sides as 3 units and the other two sides as 6 units. Which statement about the rectangle she drew is true?

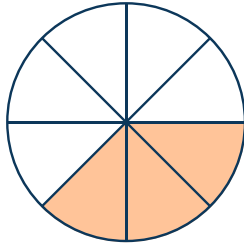


- A. The perimeter is 18 square units and the area is 18 units
- B. The perimeter and area of all rectangles are the same.
- C. The perimeter is 18 units and the area is 18 square units.
- D. The perimeter is 18 units and the area is 9 square units.

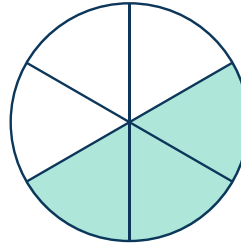
Standard: 3.NF.A.3d

DOK 3

- 20 Two fraction models are given.



Model 1



Model 2

Write the fraction that represents each model.

Model 1: _____

Model 2: _____

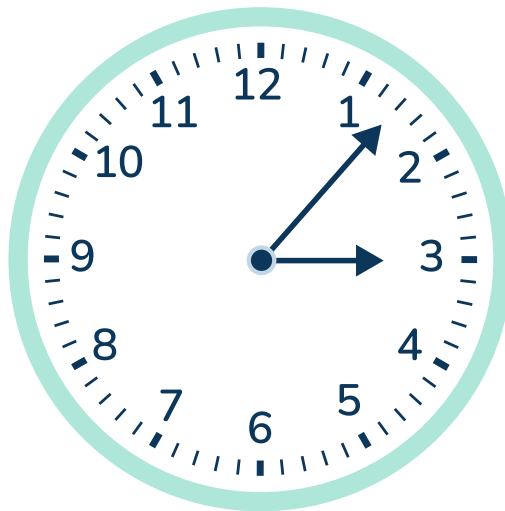
Choose the correct statement:

- A. The fraction represented in model 1 is greater than the fraction represented in model 2.
- B. The fraction represented in model 1 is less than the fraction represented in model 2.
- C. The fraction represented in model 1 is equal to the fraction represented in model 2.
- D. The fraction represented in model 2 is less than the fraction represented in model 1.

SESSION 2:
15 Questions

Standard: 3.MD.A.1
DOK 1

- 1 Luca is meeting his friends at the park at the time on the clock below. What is the time represented?



- A. 3:07
- B. 3:05
- C. 3:10
- D. 3:09

Standard: 3.OA.A.2
DOK 2

- 2 Xavier has 40 lollipops. He gives all of the lollipops to 5 of his friends. Each friend gets the same number of lollipops. Write an expression that can be used to find the number of lollipops each friend will get.

Standard: 3.OA.A.3

DOK 2

- 3 Mya earns the same amount of money each day working at the coffee shop. If she earns \$108 at the end of 9 days, how much does she make each day?

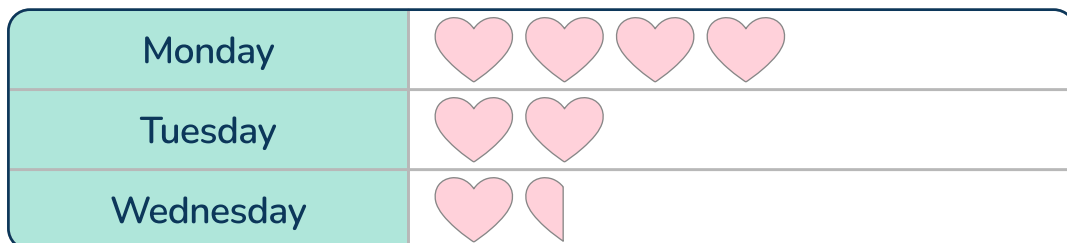
- A. \$117
- B. \$10
- C. \$12
- D. \$13

Standard: 3.MD.B.3

DOK 3

- 4 Use the information in the graph below to answer the questions.

Animal Shelter Pet Adoptions



 = 4 pet adoptions

Explain how you can find the total number of pet adoptions on Monday, Tuesday, and Wednesday. Use the space below to write your answer.

 Answer

Arizona Practice Test | Grade 3 | Questions

Standard: 3.MD.B.3

DOK 3

- 5 Using the same table from #4, how many more pet adoptions were there on Monday than on Tuesday and Wednesday? Use the space below to write your answer.

 Answer

Standard: 3.NBT.A.1

DOK 2

- 6 What is the value of 674 rounded to the nearest ten? Write your answer in the space below.

 Answer

Standard: 3.OA.D.8

DOK 3

- 7 A coach puts 12 baseballs into one bag and 24 baseballs into another bag. If the coach divides all the baseballs into 6 equal groups, how many baseballs will there be in each group?

- A. 6 baseballs
- B. 2 baseballs
- C. 4 baseballs
- D. 30 baseballs

Standard: 3.MD.A.1

DOK 3

- 8 Sydney and Olivia both ran the 1600 meter race. Sydney finished the race 2 minutes before Olivia. If Olivia finished the race at 5:07 PM, what time did Sydney finish the race?

Use the space below to write your answer:

 Answer

Standard: 3.OA.A.3

DOK 3

9 Which statement can describe this expression?

$$56 \div 8$$

- A. Lori has 56 gum drops, and she gave 8 of them away.
- B. Bobby has 56 tomatoes; he sorts them equally into 7 boxes.
- C. Nora has 56 paper plates and wants to give 8 of them to her neighbor.
- D. Zoey has 56 hair ties that she sorts equally among her 8 friends.

Standard: 3.NBT.A.3

DOK 1

10 Select the expressions that can be used to represent 640.

- A. 6×80
- B. 6×8
- C. 8×80
- D. 8×8

Standard: 3.NBT.A.2

DOK 2

- 11 What number correctly completes the equation?

$$519 + \square = 532$$

Standard: 3.OA.C.7

DOK 3

- 12 Lizzy has 6 boxes. She will put 8 books in each box. How many total books does she box? Use the space below to write an equation and find the total number of boxes.

 Answer

Standard: 3.OA.A.3

DOK 3

- 13 Carly owns a travel volleyball club. He needs to reserve vans to transport 100 volleyball players to their games. If the vans only hold 12 passengers, what is the least amount of vans Carly needs to reserve?

Explain your answer in the space below.

 Answer

Standard: 3.OA.A.3

DOK 2

- 14 Khaled circles the products of 6 in red and circles the products of 3 in blue. Which statements about the products are true? Select all the correct answers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

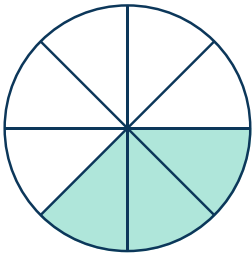
- A. The products of 6 are always even
- B. The products of 3 are always odd
- C. All products of 6 are also products of 3
- D. All products of 3 are also products of 6
- E. Half a product of 6 is always a product of 3

Standard: 3.MD.C.7

DOK 3

- 15 Mr. Emmerich wants to display the art projects from both of his classes in one rectangular array on the wall outside his classroom. There are 19 projects in one class and 26 projects in the other class. Use the space below to draw a rectangular array that could represent the arrangement of art projects and find the area of the array.

Answer Key

Section 1			
Answer Key			
Item number	Correct answer	Standard(s)	DOK
1		3.NF.A.1	DOK 1
2	E and F	3.NF.A.3b	DOK 2
3	12×6 or 6×12	3.OA.B.5	DOK 2
4	D	3.MD.C.7.d	DOK 3
5	540	3.NBT.A.3	DOK 1
6	C	3.OA.A.1	DOK 1
7	$6 \times 12 = 72$ kg	3.MD.A.2	DOK 2
8	400 km	3.NBT.A.1	DOK 2
9	$\frac{1}{4}$	3.NF.A.2b	DOK 2
10	B	3.G.A.2	DOK 2
11	9	3.OA.A.4	DOK 2
12	B	3.OA.D.10	DOK 3
13	D	3.NF.A.2b	DOK 2

Arizona State Practice Math Test | Grade 3 | Answers

Section 1			
Answer Key			
Item number	Correct answer	Standard(s)	DOK
14	C	3.OA.B.5	DOK 3
15	$9 \times 12 = 108$ gal	3.MD.A.2	DOK 2
16	D	3.NF.A.3d	DOK 1
17	D	3.G.A.2	DOK 2
18	6	3.OA.A.4	DOK 2
19	C	3.MD.C.5b	DOK 3
20	Model 1 = $\frac{3}{8}$ Model 2 = $\frac{3}{6}$ B	3.NF.A.3d	DOK 3

Section 2			
Answer Key			
Item number	Correct answer	Standard(s)	DOK
1	A	3.MD.A.1	DOK 1
2	$40 \div 5$	3.OA.A.2	DOK 2
3	C	3.OA.A.3	DOK 2
4	There are a total of 7.5 hearts which is equal to 30 adoptions	3.MD.B.3	DOK 3
5	2 more adoptions on Monday than Tuesday and Wednesday. Monday = 16 adoptions Tuesday & Wednesday = 14 adoptions $16 - 14 = 2$	3.MD.B.3	DOK 3
6	670	3.NBT.A.1	DOK 2
7	A	3.OA.D.8	DOK 3
8	5:05	3.MD.A.1	DOK 3
9	D	3.OA.A.3	DOK 3
10	C	3.NBT.A.3	DOK 1
11	13	3.NBT.A.2	DOK 2
12	$6 \times 8 = 48$ 48 books	3.NBT.A.2	DOK 2

Section 2			
Answer Key			
Item number	Correct answer	Standard(s)	DOK
13	Student explains that 100 divided by 12 is more than 8, so 9 buses are needed.	3.OA.A.3	DOK 3
14	A, C, E	3.OA.A.3	DOK 2
15	Students draw a 9 x 5 or a 5 x 9 rectangle with an area of 45. Students can also draw a 3 x 15 or a 15 x 3 rectangle.	3.MD.C.7	DOK 3

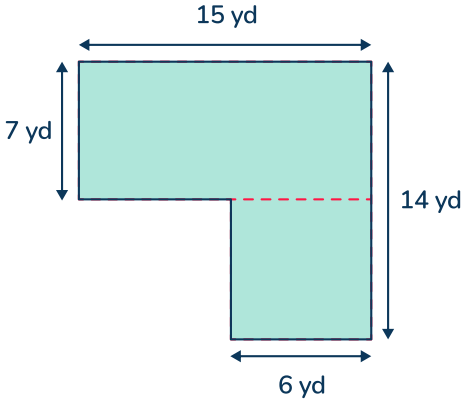
Breakdown of Assessment by domain				
Operations and Algebraic thinking (OA)	Number and Operations in Base Ten (NBT)	Number and Operations - Fractions (NF)	Measurement and Data (MD)	Geometry (G)
37%	14%	17%	26%	6%

Rationales

Item	Item	Rationale
1	1	The student shades in 3 of the 8 equal pieces.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
2	1	The student selects E and F, $\frac{1}{3}$ because $\frac{1 \times 2}{3 \times 2} = \frac{2}{6}$ and because $\frac{4 \div 2}{12 \div 2} = \frac{2}{6}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
3	1	The student writes 12×6 or 6×12
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
4	1	The student selects D. They divide the figure into 2 rectangles. Finds the area of 15×7 rectangle which is 105 and then the area of the second rectangle which is $6 \times 7 = 42$  The student selects D. They divide the figure into 2 rectangles. Finds the area of 15×7 rectangle which is 105 and then the area of the second rectangle which is $6 \times 7 = 42$
	0	The total area is 147 yd ²

Item	Item	Rationale
5	1	The student writes 540.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
6	1	The student correctly identifies C. 4 rows by 6 columns
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
7	1	The student writes $6 \times 12 = 72$ kilograms
	0	The response is incorrect or irrelevant.

Arizona Practice Test | Grade 3 | Rationales

Item	Item	Rationale
8	1	The student writes 400 miles.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
9	1	The student correctly identifies point P to be $\frac{1}{4}$.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
10	1	The student correctly identifies B, the fraction is $\frac{1}{6}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
11	1	The student correctly identifies the missing number to be 9.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
12	1	The student selects B, the correct equation is $700 - 300 = 400$.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
13	1	The student selects the correct point which is D.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
14	1	The student selects the correct expression C, $4 \times (6 + 4)$
	0	The response is incorrect or irrelevant.

Arizona Practice Test | Grade 3 | Rationales

Item	Item	Rationale
15	1	The student writes $9 \times 12 = 108$ gallons of water.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
16	1	The student selects the model that represents $\frac{6}{8}$ which is D.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
17	1	The student selects the model that has 4 equal pieces, which is D.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
18	1	The student writes the number 6.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
19	1	The student figures out that the perimeter is 18 units and the area is 18 square units, C.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
20	1	The student correctly identifies the fractions. Model 1 = $\frac{3}{8}$ Model 2 = $\frac{3}{6}$ And selects the correct statement which is B.
	0	The response is incorrect or irrelevant.

Arizona Practice Test | Grade 3 | Rationales

Item	Item	Rationale
1	1	The student selects the correct time, 3:07, A.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
2	1	The student writes the expression, $40 \div 5$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
3	1	The student correctly identifies C, $108 \div 9 = 12$ \$12 per day
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
4	1	Students provide a similar explanation: In Table 1 heart represents 4 adoptions. There are a total of 7.5 hearts Monday through Wednesday. The 7 whole hearts equal $7 \times 4 = 28$ adoptions The half heart equals 2 adoptions. So in total, there are 30 adoptions.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
5	1	Students identify that there are 2 more adoptions. Monday there are 4 hearts so that is $4 \times 4 = 16$ adoptions Tuesday and Wednesday there are 3.5 hearts which is $3 \times 4 = 12$ adoptions plus 2 more which is a total of 14 adoptions $16 - 14 = 2$ There are 2 more adoptions on Monday than on Tuesday and Wednesday.
	0	The response is incorrect or irrelevant.

Arizona Practice Test | Grade 3 | Rationales

Item	Item	Rationale
6	1	Students correctly round the number to 670.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
7	1	Students identify 6 baseballs in each group, A.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
8	1	Student identifies 5:05 as the time.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
9	1	The student selects D.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
10	1	Student selects C.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
11	1	The student correctly identified 13 as the missing number.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
12	1	Student writes: $6 \times 8 = 48$ 48 total books
	0	The response is incorrect or irrelevant.

Arizona Practice Test | Grade 3 | Rationales

Item	Item	Rationale
13	1	The student correctly demonstrates division through drawings, explanations using multiplication, etc.. Students also demonstrate that 9 buses need to be reserved as opposed to 8 buses.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
14	1	The student correctly selects A, C, E
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
15	1	Students draw a 9×5 or 5×9 array or 3×15 or 15×3 array and find the area to be 45 square units. Rectangular array of 45. So the array can be any dimension that multiplies to be 45. Example: $5 \times 9 = 45$
	0	The response is incorrect or irrelevant.

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

- ✓ Differentiated instruction for each student
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