



**THIRD SPACE  
LEARNING**

# 4th Grade Arizona State Practice Math Test

Arizona Practice Test Grade 4

**Grade 4**

## Questions

Name: .....

Class: .....

Date: .....

Score: .....

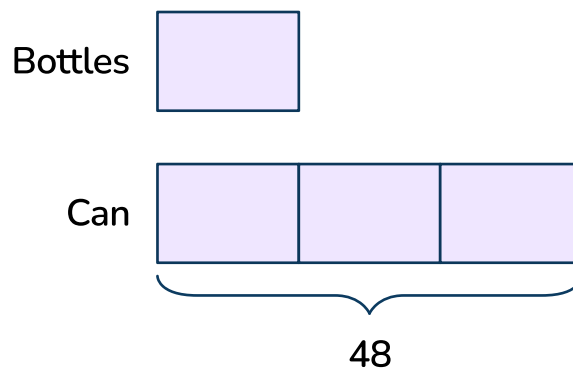
**Session 1:**

**20 Questions**

**Standard: 4.OA.A.2**

**DOK 2**

- 1 Ciara is collecting bottles and cans to raise money for her soccer team. So far, she has collected three times as many cans as bottles. If she has collected 48 cans, how many bottles has she collected? Use the diagram to help you.



Use the space below to show your work.

 Answer

**Standard: 4.NBT.B.4**

**DOK 1**

- 2 Solve  $73,290 + 61,854$ , use the space below to show your work.

 Answer

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**Standard: 4.MD.A.1**

**DOK 3**

- 3 Katie bought 5 pounds of grass seed for her backyard. She used 55 ounces of the seed on Monday and put the rest in her garage to use the following week. How many ounces of grass seed does Katie have to use next week?

- A. 35 ounces
- B. 50 ounces
- C. 80 ounces
- D. 25 ounces

**Standard: 4.OA.A.4**

**DOK 1**

- 4 Select the set of numbers that are multiples of 8.

A. 8, 16, 23, 31, 40

B. 1, 8, 16, 24

C. 1, 2, 4, 8

D. 8, 16, 24, 32, 40

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**Standard: 4.OA.A.2**

**DOK 2**

- 5 Dylan lives 3 times as far away from the baseball stadium as Peter. Dylan lives 33 miles from the baseball stadium. The equation below represents this situation. Find the missing value which is also the distance Peter lives from the stadium.

$$3 \times \square = 33$$



**Standard: 4.NBT.B.5**

**DOK 2**

- 6 Find the value of the given expression.

$$282 \div 6$$

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**Standard: 4.OA.C.5**

**DOK 3**

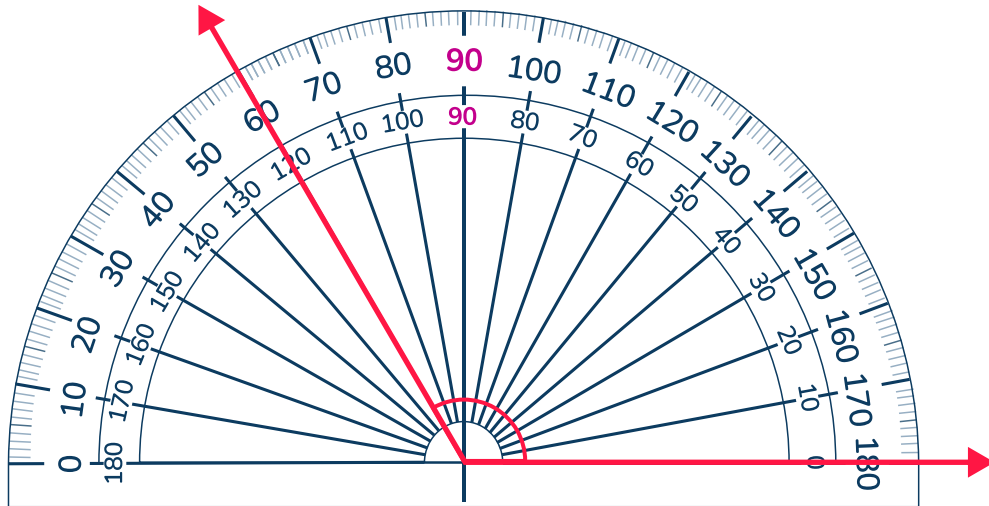
- 7 The list of numbers is in an addition pattern. Find the number that completes this pattern.

26, \_\_\_\_\_, 52, 65, 78

**Standard: 4.MD.C.6**

**DOK 2**

- 8 What is the measure of the angle? Use the space provided to write your answer.



 Answer

**Standard: 4.NBT.B.6, 4.OA.A.3**

**DOK 3**

- 9 323 students are going on a field trip. They can enter the museum in groups of 8. How many groups of students will there be?

- A. 331 groups
- B. 40 groups
- C. 315 groups
- D. 41 groups

**Standard: 4.NBT.B.5**

**DOK 2**

- 10** Find the value of  $1023 \times 8$ , enter you answer in the space provided.

 Answer

---

**Standard: 4.NF.C.7**

**DOK 1**

- 11** Write either  $<$ ,  $>$ , or  $=$  to make the comparison true.

0.5 meter \_\_\_\_\_ 0.3 meter

0.02 meter \_\_\_\_\_ 0.2 meter

0.30 meter \_\_\_\_\_ 0.3 meter

**Standard: 4.OA.A.3**

**DOK 3**

- 12** Julie, Danny, and Susan are saving money so that they can buy a ticket to a play for their mom for her birthday.

- The play ticket costs \$85.
- Julie, Danny, and Susan each have saved \$30.

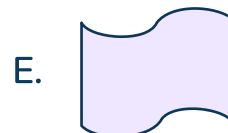
What is the total amount of money that Julie, Danny, and Susan will have left over after they buy the play ticket? Use the space below to write your answer.

 Answer

**Standard: 4.G.A.3**

**DOK 2**

- 13** Select all the figures that have only 1 line of symmetry.



Standard: 4.OA.B.4

DOK 2

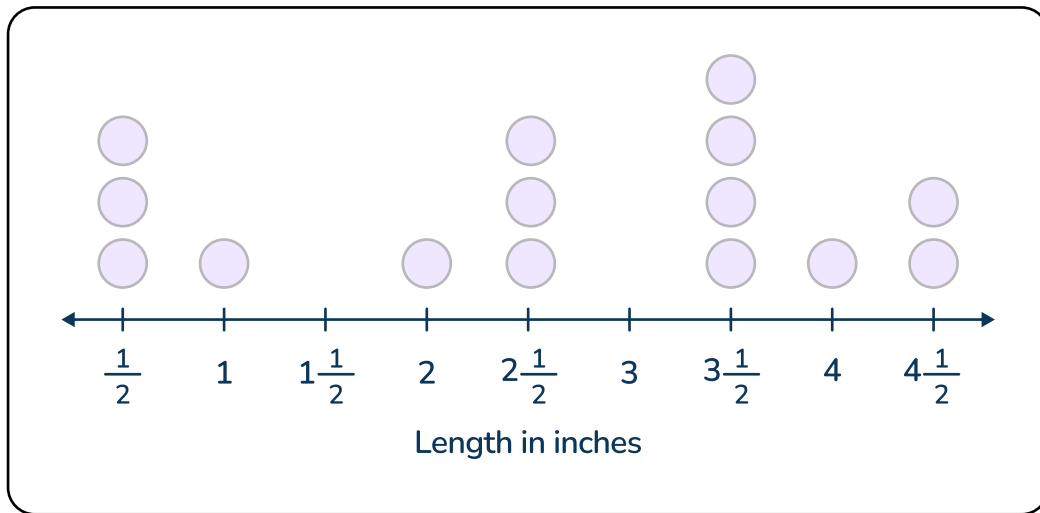
- 14
- Select the numbers that are factors of 24, 32, 36.  
Select all the correct answers, you may select more than one answer in each row.

	4	6	8
Factor of 24			
Factor of 32			
Factor of 36			

Standard: 4.MD.B.4

DOK 2

- 15 The line plot shows the length of 15 different fish.



What is the difference in length, in inches, between the fish that is the longest and the fish that is the shortest? Use the space below to write your answer.

 Answer

**Standard: 4.NF.B.3**

**DOK 2**

- 16** Which expressions are equivalent to  $\frac{7}{10}$ ?  
Select all that apply.

A.  $\frac{3}{10} + \frac{1}{10} + \frac{2}{10}$

B.  $\frac{1}{10} + \frac{1}{10} + \frac{2}{10} + \frac{3}{10}$

C.  $\frac{5}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10}$

D.  $\frac{3}{10} + \frac{4}{10}$

E.  $\frac{6}{10} + \frac{2}{10}$

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**Standard: 4.NBT.A.3**

**DOK 2**

- 17** Round the number 562,603 to the nearest thousand.  
Write your answer in the space provided.

 Answer

**Standard: 4.NBT.B.4**

**DOK 1**

- 18 Subtract,  $5,791 - 3,428$  using the standard algorithm.

Write your answer in the space below.

 Answer

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**Standard: 4.NF.B.4**

**DOK 2**

- 19 Violet and Claire each ran at a track meet. Violet ran  $\frac{3}{4}$  miles. Claire ran 3 times as far as Violet. How many miles did Claire run?

- A.  $2\frac{1}{4}$
- B.  $1\frac{1}{2}$
- C.  $3\frac{3}{4}$
- D. 4



**Standard:** 4.OA.A.2

**DOK** 3

- 20 Using the following area model for multiplication, Colin solves  $37 \times 19$ . What is the missing number in the model?

300	70
?	63

Write your answer in the space below:

 Answer

Session 2:  
15 Questions

Standard: 4.NF.A.1  
DOK 2

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

A.

B.

C.

D.

Standard: 4.NBT.A.1  
DOK 2

2 What values correctly complete the equations in the table?

	Missing number	Product
420 ×		4200
6094 ×		60,940
3000 ×		300,000

**Standard: 4.OA.C.5**

**DOK 3**

- 3 Describe the rule for the number pattern below.

9, 18, 12, 24, 18, 36, 30...

Use the space below to write your answer.

 Answer

---

**Standard: 4.MD.A.3**

**DOK 2**

- 4 The area of Laura's room is  $192 \text{ ft}^2$  and the width of the room is 12 ft. Find the length of the room.

Use the space below to write your answer.

 Answer

**Standard: 4.NF.B.3**

**DOK 1**

5 Which improper fraction is equivalent to  $4\frac{2}{5}$ ?

A.  $\frac{22}{5}$

B.  $\frac{21}{5}$

C.  $\frac{20}{5}$

D.  $\frac{11}{5}$

---

**Standard: 4.G.A.2**

**DOK 2**

6 Which statement is true about an obtuse triangle?

A. The triangle has three acute angles.

B. The triangle has three obtuse angles

C. The triangle has exactly one obtuse angle.

D. The triangle has exactly one right angle.

**Standard: 4.NF.B.4**

**DOK 3**

- 7 Which number makes the equation true?

$$14 \times \frac{2}{5} = ? \times \frac{1}{5}$$

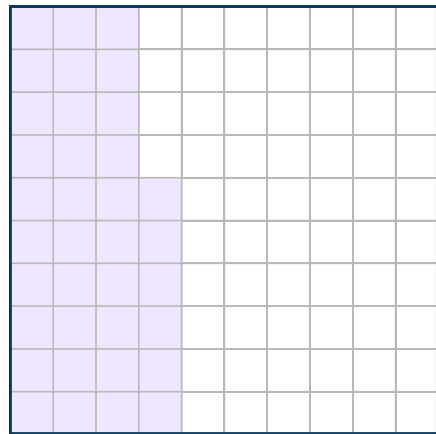
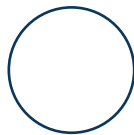
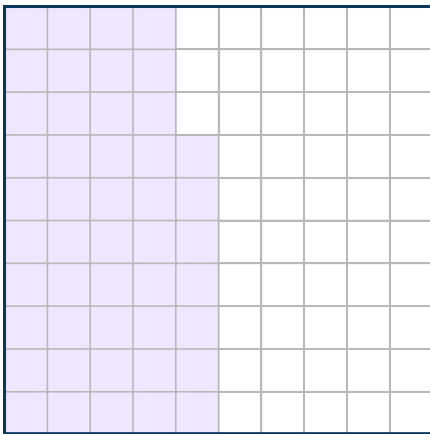
- A. 14
- B. 28
- C. 4
- D. 12

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**Standard: 4.NF.C.7**

**DOK 3**

- 8 Write a comparison statement using  $>$ ,  $<$ ,  $=$ , comparing the decimals represented in the model below.



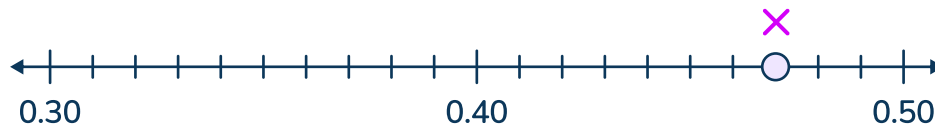
Use the space below to write your answer.

 Answer

**Standard: 4.NF.C.6**

**DOK 2**

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



Write your answer in the space below.

 Answer

---

**Standard: 4.OA.B.4**

**DOK 2**

- 10 The number of rabbits that are on the farm is less than 35 and is also a multiple of 8. How many rabbits are on the farm?

- A. 32
- B. 30
- C. 40
- D. 14

**Standard: 4.MD.C.5**

**DOK 3**

- 11** What is the measurement of an angle in degrees that represents  $\frac{1}{6}$  of a complete circle?

Write your answer in the space below.

 Answer

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**Standard: 4.OA.A.3**

**DOK 3**

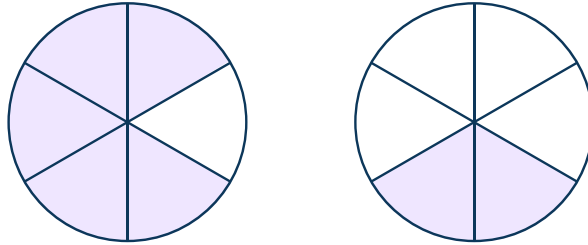
- 12** Lynwood Elementary is having a craft sale. They are selling ornaments for \$3. There are 8 boxes of ornaments and 20 ornaments in each box. If all the ornaments are sold, how much money will Lynwood Elementary School make? Use the space below to write your answer.

 Answer

**Standard: 4.NF.B.3**

**DOK 3**

- 13** Find the sum of the two different fractions represented by the model below.



- A.  $\frac{7}{12}$   
B.  $\frac{7}{6}$   
C.  $\frac{6}{12}$   
D.  $\frac{6}{6}$

---

**Standard: 4.OA.A.3**

**DOK 3**

- 14** Bella is at the boardwalk. She only has 47 tickets to play the boardwalk games and each game is 4 tickets. What is the most amount of games she can play?

Write your answer in the space below.

 Answer



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

DOK 3

- 15 Over winter break, Jonah read 48 pages of a book. Oscar read 3 times as many pages of the same book. Julia read twice as many pages as Oscar.

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

Write your answer in the table below.

Oscar	Julia

## Answer Key

Answer Key			
Session 1			
Item number	Correct answer	Standard(s)	DOK
1	16	4.OA.A.2	DOK 2
2	135,144	4.NBT.B.4	DOK 1
3	D	4.MD.A.1	DOK 3
4	D	4.OA.A.4	DOK 1
5	11	4.OA.A.2	DOK 2
6	47	4.NBT.B.5	DOK 2
7	39	4.OA.C.5	DOK 3
8	120°	4..MD.C.6	DOK 2
9	D	4.NBT.B.6, 4.OA.A.3	DOK 3
10	8,184	4.NBT.B.5	DOK 2
11	0.5 m > 0.3 m 0.02 m < 0.2 m 0.30 m = 0.3 m	4.NF.C.7	DOK 1
12	\$5	4.OA.A.3	DOK 3
13	B, C, F	4.G.A.3	DOK 2
14	Row 1: 4, 6, 8 Row 2: 4, 8 Row 3: 4, 6	4.OA.B.4	DOK 2

Arizona State Practice Math Test | Grade 4 | Answers

Item number	Correct answer	Standard(s)	DOK
15	4	4.MD.B.4	DOK 2
16	B and D	4.NF.B.3	DOK 2
17	563,000	4.NBT.A.3	DOK 2
18	2,363	4.NBT.B.4	DOK 1
19	A	4.NF.B.4	DOK 2
20	270	4.OA.A.2	DOK 3

# Arizona State Practice Math Test | Grade 4 | Answers

Session 2			
Item number	Correct answer	Standard(s)	DOK
1	A	4.NF.A.1	DOK 2
2	Row 1: 10 Row 2: 10 Row 3: 100	4.NBT.A.1	DOK 2
3	Multiply by 2 and then subtract 6	4.OA.C.5	DOK 3
4	16 feet	4.MD.A.3	DOK 2
5	A	4.NF.B.3	DOK 1
6	C	4.G.A.2	DOK 2
7	B	4.NF.B.4	DOK 3
8	$0.47 > 0.36$	4.NF.C.7	DOK 3
9	0.47	4.NF.C.6	DOK 2
10	A	4.OA.B.4	DOK 2
11	60°	4.MD.C.5	DOK 3
12	\$480	4.OA.A.3	DOK 3
13	B	4.NF.B.3	DOK 3
14	11 games	4.OA.A.3	DOK 3
15	Oscar: $48 \times 3 = 144$ pages Julia: $144 \times 2 = 288$ pages	4.OA.A.2 4.OA.A.3	DOK 3

## Arizona State Practice Math Test | Grade 4 | Answers

Item	Item	Rationale
1	1	The student identifies that 48 divided by 3 is 16. If Ciara collected 16 bottles, then 48 would be 3 times as many, so this is correct.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
2	1	Student demonstrates understanding using the algorithm and gets the correct answer, 135,144
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
3	1	The student correctly converted the 5 pounds into 80 ounces ( $5 \times 16 = 80$ ). They then subtracted 80 ounces - 55 ounces to find the answer, 25 ounces, D
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
4	1	The student chooses, D, 8, 16, 24, 32, and 40 are all multiples of 8
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
5	1	The student identifies the missing value to be 11, which means that Peter lives 11 miles from the stadium.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
6	1	The student identifies the value to be 47.
	0	The response is incorrect or irrelevant.

## Arizona State Practice Math Test | Grade 4 | Answers

Item	Item	Rationale
7	1	The student identifies the missing number as 39.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
8	1	The student identifies the angle measure to be $120^\circ$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
9	1	The student selects D, 41 groups.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
10	1	The student correctly multiplies to get a product of 8184.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
11	1	The student makes the correct comparisons. $0.5 \text{ m} > 0.3 \text{ m}$ $0.02 \text{ m} < 0.2 \text{ m}$ $0.30 \text{ m} = 0.3 \text{ m}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
12	1	The student correctly multiplies $3 \times 30 = 90$ $\$90$ is saved by Julie, Danny, and Susan. Subtract $\$85$ from $\$90$ , $90 - 85 = 5$ There is $\$5$ left over.
	0	The response is incorrect or irrelevant.

## Arizona State Practice Math Test | Grade 4 | Answers

Item	Item	Rationale
13	1	The student selects B, C, F
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
14	1	The student selects the following: Row 1 (24): 4, 6, 8 Row 2 (32): 4, 8 Row 3:(36): 4, 6
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
15	1	The student correctly subtracts, $4\frac{1}{2} - \frac{1}{2} = 4$ 4 inches is the difference.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
16	1	The student correctly identifies choices B and D
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
17	1	The student writes 563,000
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
18	1	The student finds the correct difference. $5,791 - 3,428 = 2,363$
	0	The response is incorrect or irrelevant.

## Arizona State Practice Math Test | Grade 4 | Answers

Item	Item	Rationale
19	1	The student selects A because, $3 \times \frac{3}{4} = \frac{9}{4} = 2\frac{1}{4}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
20	1	The student identifies 270 as the missing number in the model.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
1	1	The student chooses A because 2 equal parts are shaded out of the 8 equal pieces. $\frac{2}{8} = \frac{1}{4}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
2	1	The student writes 10 in the first row, $420 \times 10 = 4200$ , in the second row the student writes 10, $6094 \times 10 = 60,940$ and in the last row the student writes, $100, 3000 \times 100 = 300,000$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
3	1	The student correctly identifies the rule to be multiplying by 2 and then after that subtract 6.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
4	1	The student knows to either divide or guess and check. $192 \div 12 = 16$ or $12 \times 16 = 192$ Length is 16 feet
	0	The response is incorrect or irrelevant.



## Arizona State Practice Math Test | Grade 4 | Answers

Item	Item	Rationale
5	1	The student correctly selects A, $4\frac{2}{5} = \frac{22}{5}$ because $5 \times 4 + 2 = 22$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
6	1	The student selects C An obtuse triangle has exactly 1 obtuse angle.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
7	1	The student selects B. This is the correct answer. $14 \times \frac{2}{5} = \frac{28}{5}$ $\frac{28}{5} = 28 \times \frac{1}{5}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
8	1	The student writes: $0.47 > 0.36$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
9	1	The student writes 0.47. The student realizes that each tick mark represents 0.01 and it is 0.07 greater than 0.40 and 0.03 less than 0.50.
	0	The response is incorrect or irrelevant.

## Arizona State Practice Math Test | Grade 4 | Answers

Item	Item	Rationale
10	1	The student selects A because 32 is a multiple of 8 and less than 35.
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
11	1	The student writes $60^\circ$ because $\frac{1}{6} \times 360^\circ = 60^\circ$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
12	1	The student writes the answer \$480 because $20 \times 8 = 160$ ornaments and $\$3 \times 160 = \$480$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
13	1	The student selects B, because, $\frac{5}{6} + \frac{2}{6} = \frac{7}{6}$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
14	1	The student writes that 11 games is the most that can be played because $47 \div 4 = 11 \text{ r } 3$
	0	The response is incorrect or irrelevant.

Item	Item	Rationale
15	1	The student writes, Oscar: $48 \times 3 = 144$ pages Julia: $144 \times 2 = 288$ pages
	0	The response is incorrect or irrelevant.

Arizona State Practice Math Test | Grade 4 | Answers




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%	21%	24%	13%	5%

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- ✓ Scaffolded learning to close gaps

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