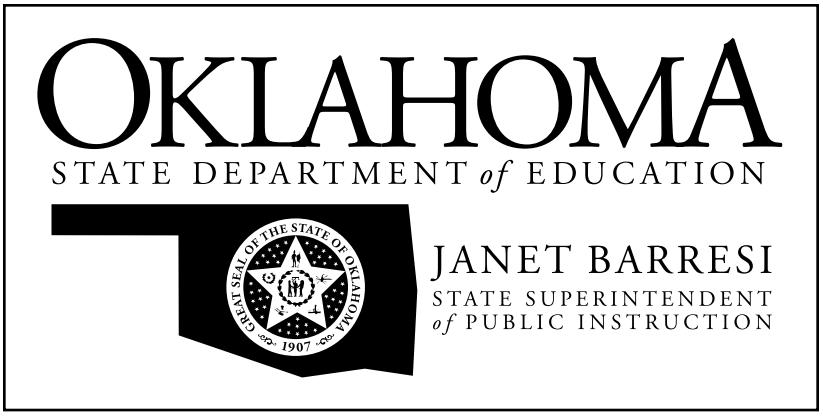
Oklahoma School Testing Program



Oklahoma Core Curriculum Tests

2011–2012 Released Items

Grade 6
Mathematics

Oklahoma State Department of Education
Oklahoma City, Oklahoma

Directions

Read each question and choose the best answer.

527267_3

1 **A pattern of flags and feathers is shown in the table. There are the same number of feathers on each state flag.**

Oklahoma State Flags
and Eagle Feathers

Number of Flags	Number of Eagle Feathers (f)
2	14
4	28
6	42
8	56

Which rule could be used to find *f*, the number of feathers on 10 Oklahoma state flags?

A $f = 10 \div 7$

B $f = 10 + 7$

C $f = 10 \times 7$

D $f = 10 - 7$

596104_3

2 **Jaden starts with $\frac{1}{6}$ cup of chocolate syrup in a glass. He adds milk $\frac{1}{4}$ cup at a time. Which list shows this pattern?**

A $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, \frac{4}{4}$

B $\frac{1}{4}, \frac{5}{12}, \frac{7}{12}, \frac{3}{4}$

C $\frac{1}{6}, \frac{5}{12}, \frac{2}{3}, \frac{11}{12}$

D $\frac{1}{6}, \frac{1}{3}, \frac{1}{2}, \frac{2}{3}$

524276_4

3 **Let *m* represent the total number of minutes Tony read in 16 days. He read for the same number of minutes each day. Which expression could be used to find the number of minutes Tony read each day?**

A $m + 16$

B $m - 16$

C $m \cdot 16$

D $m \div 16$

538704_2

4 **Yesterday, Rosemary spent $10 on a book and paid her portion of a restaurant bill, *x*. This expression can be used to find the total amount Rosemary spent yesterday.**

$$10 + x \div 5$$

The restaurant bill, *x*, was $40. How much did Rosemary spend yesterday?

A $10

B $18

C $42

D $58

527280_3

5 **If $p = 7$, what is the value of the following expression?**

$$3(p + 4)$$

A 14

B 25

C 33

D 48

527301_1

6 **If $t = 6$, what values belong to the two expressions shown in the table?**

Missing Values

$12t$	?
$2(12t \div 3)$	?

A 72 and 48

B 72 and 12

C 18 and 48

D 18 and 12

528119_4

7 **Which equation models the sentence below?**

The product of a number, *t*, and one-half is seven.

A $\frac{1}{2} + t = 7$

B $t + 7 = \frac{1}{2}$

C $7 \bullet \frac{1}{2} = t$

D $t \bullet \frac{1}{2} = 7$

595739_1

8 **Mindy races go-carts. The table shows how fast she drove at each racetrack.**

Mindy's Races

Racetrack	Speed (miles per hour)
W	81.105
X	78.167
Y	81.021
Z	75.905

At which racetrack was Mindy's speed the fastest?

A racetrack W

B racetrack X

C racetrack Y

D racetrack Z

527548_4

9 **Students are decorating a rectangular bulletin board that measures $8\frac{1}{4}$ feet by $4\frac{2}{3}$ feet. What is the area of the bulletin board, in square feet (sq ft)?**

A $25\frac{5}{6}$ sq ft

B $30\frac{1}{3}$ sq ft

C $32\frac{1}{6}$ sq ft

D $38\frac{1}{2}$ sq ft

GO ON ▶

525566_1

10 **A little more than 75% of the students in Mr. Morgan's fifth-grade class raised money for the "Save the Rain Forest" project. There are 32 students in Mr. Morgan's class. About how many students raised money?**

A 26

B 30

C 32

D 43

525570_2

11 **Matt's vacation lasted 9 days. He spent about 50% of his vacation at the lake. Which is closest to the number of days Matt spent at the lake?**

A 6 days

B 5 days

C 3 days

D 2 days

622509_1

12 **In a card game, Donnie has a score of $^{-}$60 points. Chuck's score is 3 times Donnie's score. What is Chuck's score?**

A $^{-}$180 points

B $^{-}$20 points

C 20 points

D 180 points

620721_3

13 **A hot air balloon was 150 feet in the air. The distances it moved down and up, in feet, are shown in this list.**

$$-40, \quad 150, \quad -80$$

How high in the air is the hot air balloon after moving these distances?

A -420 feet

B -180 feet

C 180 feet

D 420 feet

527637_2

14 **Which follows the correct order of operations to simplify the expression below?**

$$8 \times 28 \div 16 + 4^2$$

A square, add, divide, multiply

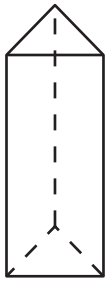
B square, multiply, divide, add

C multiply, divide, add, square

D divide, multiply, add, square

620323_4

15 **The umbrella stand in Diane's hallway is in the shape of a triangular prism.**



How many edges does a triangular prism have?

A 2 edges

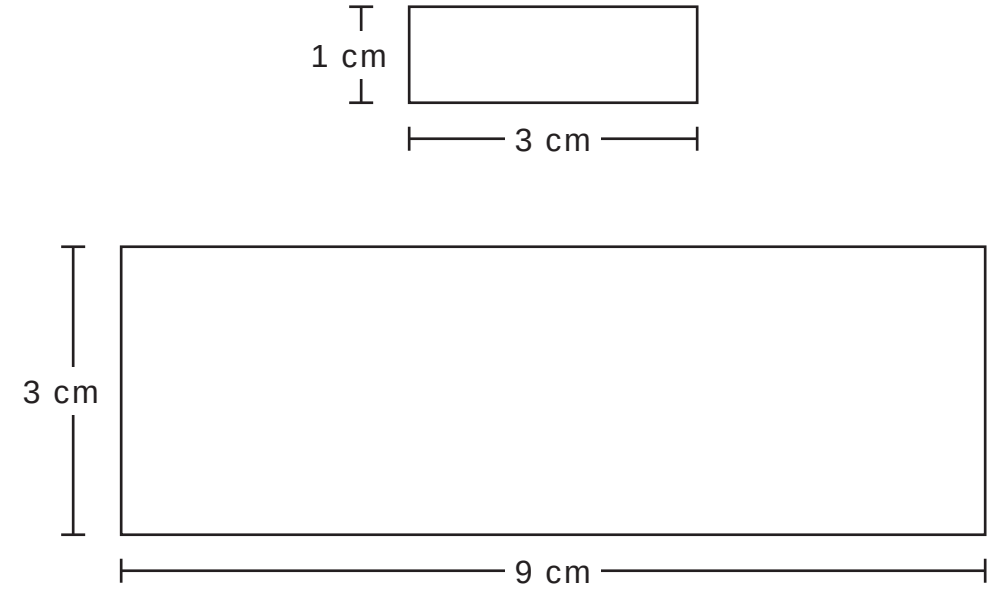
B 5 edges

C 6 edges

D 9 edges

527449_1

16 **Which statement <u>best</u> describes the rectangles below?**



A The smaller rectangle is similar to the larger rectangle.

B The smaller rectangle is congruent to the larger rectangle.

C The dimensions of the smaller rectangle are the dimensions of the larger rectangle.

D The dimensions of the smaller rectangle are 3 times the dimensions of the larger rectangle.

527457_3

17 **A square has a side length of 8 centimeters, and a smaller square has a side length of 4.5 centimeters. Which statement about these two squares is true?**

A The two squares are similar and congruent.

B The two squares are congruent but not similar.

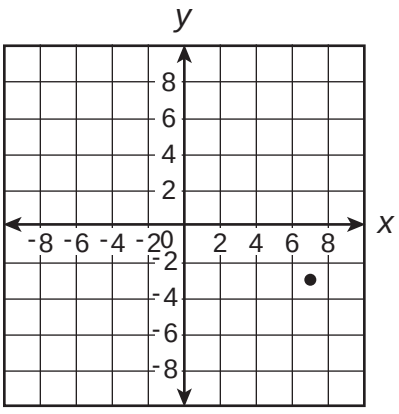
C The two squares are similar but not congruent.

D The two squares are neither similar nor congruent.

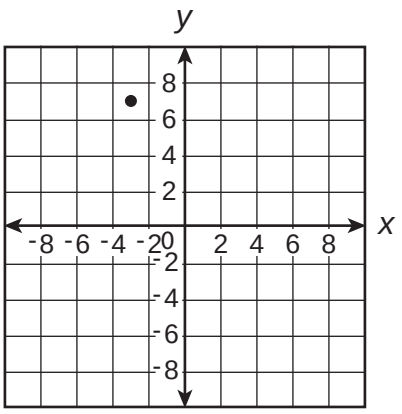
528965_2

18 **Naomi plotted the point $(^{-}3, 7)$ on a coordinate plane. Which best represents the correct location of this point?**

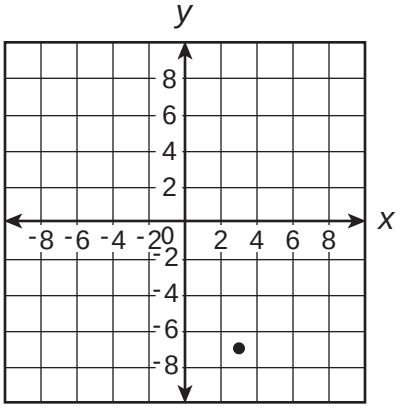
A



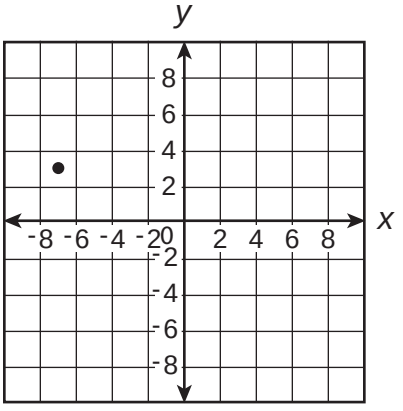
B



C



D



620123_3

19 **When the propeller of a plane spins, it creates a circle with a diameter of 6 feet. What is the area of the circle in square feet (sq ft.)?**

$$A = \pi r^2$$

A 3π sq ft

B 6π sq ft

C 9π sq ft

D 36π sq ft

620724_2

20 **Tessa is making a juice drink. Each package of juice mix makes 2 quarts of juice drink. How many packages of juice mix does Tessa need to make 3 gallons of juice drink?**

A 3 packages

B 6 packages

C 12 packages

D 24 packages

622416_4

21 **Abbey bought a 45-yard roll of painter's tape. She used 324 inches of the tape. How many yards of painter's tape are left on the roll?**

A 9 yards

B 18 yards

C 27 yards

D 36 yards

538722_1

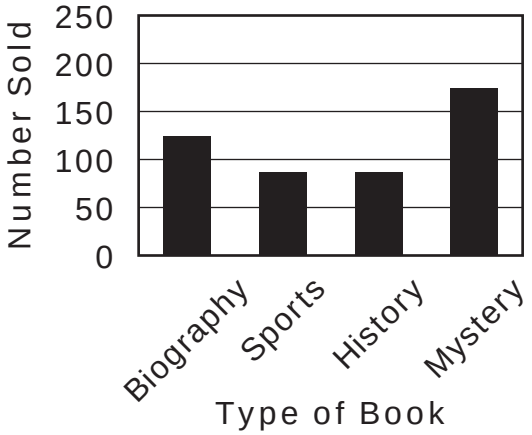
22 **The table shows the number of each type of book sold at a book fair.**

Books Sold

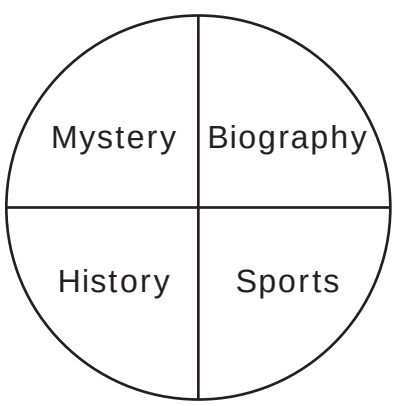
Type of Book	Number Sold
biography	120
sports	90
history	90
mystery	180

Which display <u>best</u> represents the information in the table?

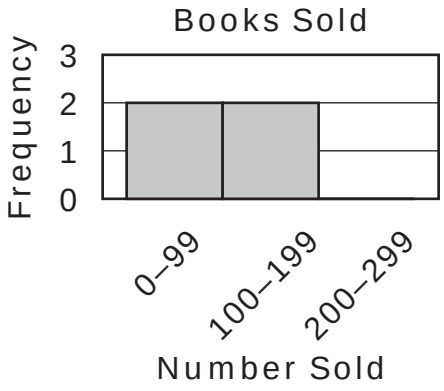
A



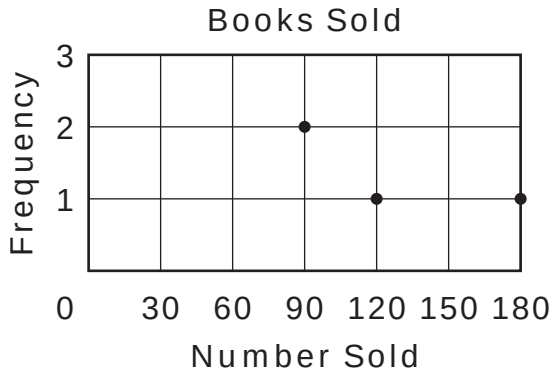
B



C



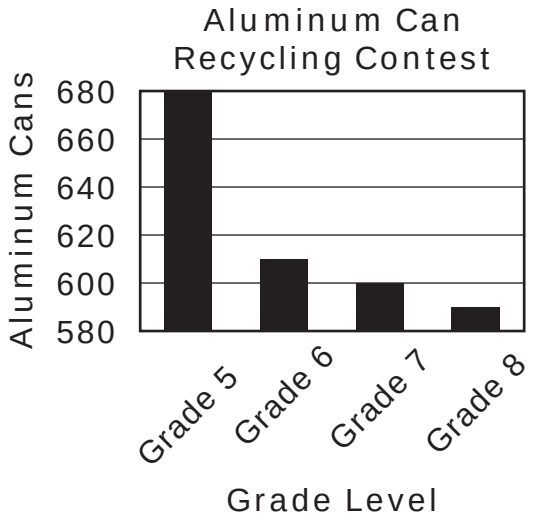
D



GO ON

527336_2

23



The graph makes it <u>appear</u> that 5th graders collected ten times the number of cans that 8th graders collected. Which statement is <u>true</u> about why the graph is misleading?

A There are more students in the 5th grade than in the 8th grade.

B The vertical axis begins with the number 580 instead of the number 0.

C Grade levels should be on the vertical axis and the number of cans should be on the horizontal axis.

D There is not a difference of 10 between each consecutive number on the vertical axis.

527362_2

24 **Eight winners of the dogsled race in Iditarod, Alaska, are listed in the table.**

Iditarod Winners

Year	Name of Winner	Finish Time (days)
1973	Dick Wilmarth	20
1975	Emmitt Peters	14
1977	Rick Swenson	16
1980	Joe May	14
1981	Rick Swenson	12
1987	Susan Butcher	11
1992	Martin Buser	10
1995	Doug Swingley	9

What is the median of the number of days it took these winners to finish the Iditarod race?

A 14

B 13

C 11

D 10

539445_3

25 **The table shows the number of birds Chandra saw each day during a week.**

Birds Chandra Saw

Day	Number of Birds
Sunday	27
Monday	20
Tuesday	27
Wednesday	14
Thursday	21
Friday	20
Saturday	33

What is the mode of the data in the table?

A 14, 33

B 19

C 20, 27

D 21

STOP

Oklahoma 2011-2012 Released Items Answer Key
Grade 6

Item Number	Correct Answer	Standard	Objective	Skill
1	C	1	1	
2	C	1	1	
3	D	1	2	
4	B	1	3	
5	C	1	3	
6	A	1	3	
7	D	1	4	
8	A	2	1	
9	D	2	2	a
10	A	2	2	c
11	B	2	2	c
12	A	2	2	d
13	C	2	2	d
14	B	2	2	e
15	D	3	1	
16	A	3	2	
17	C	3	2	
18	B	3	3	
19	C	4	1	
20	B	4	2	
21	D	4	2	
22	A	5	1	
23	B	5	1	
24	B	5	3	
25	C	5	3	