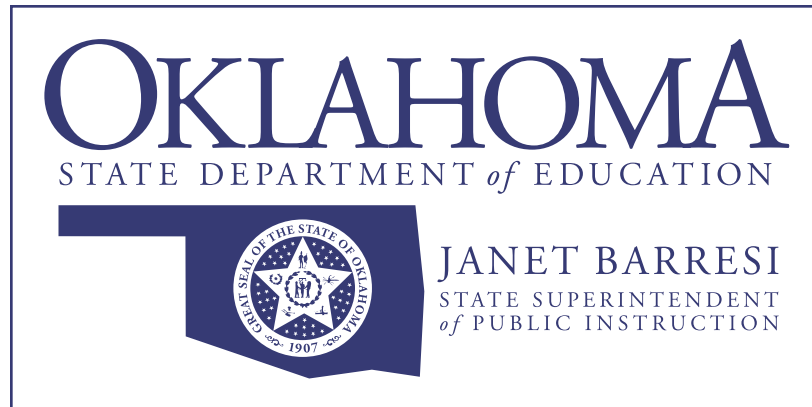


Oklahoma School Testing Program



Oklahoma Core Curriculum Tests

2011–2012 Released Items

End-of-Instruction
ACE Algebra I

Oklahoma State Department of Education
Oklahoma City, Oklahoma

PEARSON

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Section 1

Section 1

Directions

Read each question and choose the best answer.

1 The difference of the product of 7 and x and the product of 6 and x^2 is 55. Which equation represents this statement?

A $7x - 6x^2 = 55$

B $7(6x^2 - x) = 55$

C $x^2(6 - 7x) = 55$

D $7(1 - x^2) = 55$

2 It takes Rebecca 20 minutes to ride her skateboard to school at 5 miles per hour. Following the same route, how long would it take her to walk to school at 2 miles per hour?

F 8 minutes

G 23 minutes

H 28 minutes

J 50 minutes

3 Which expression is the simplified form of $\frac{\sqrt{3} + \sqrt{2}}{\sqrt{3}}$?

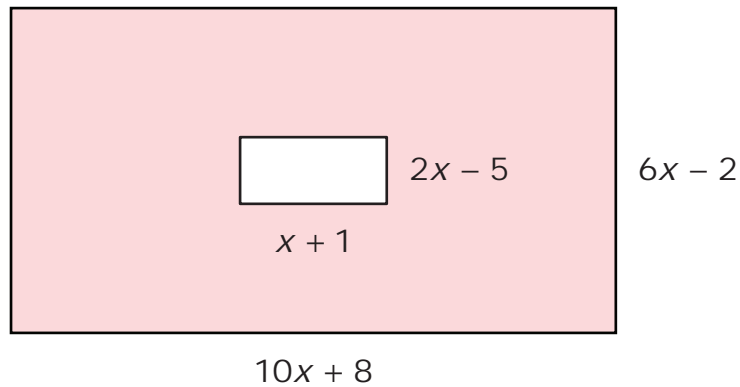
A $1 + \frac{\sqrt{2}}{3}$

B $1 + \frac{\sqrt{6}}{3}$

C $1 + \sqrt{2}$

D $1 + \sqrt{6}$

- 4 The dimensions of the larger rectangle are $(10x + 8)$ units by $(6x - 2)$ units. The dimensions of the smaller rectangle are $(x + 1)$ units by $(2x - 5)$ units.



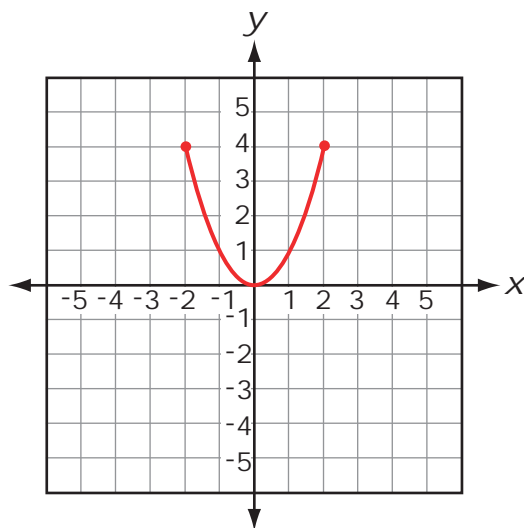
What is the area of the shaded region in square units?

- F $58x^2 - 11$
 G $58x^2 - 21$
 H $58x^2 + 31x - 11$
 J $58x^2 + 31x - 21$
- 5 Which expression is a factor of $6x^3y^2 - 13x^2y^2 + 6xy^2$?

- A $3x - 2$
 B $3x + 2$
 C $3x - 2y$
 D $3x + 2y$

Section 1

6



What is the range of this graphed function?

F $-2 \leq x \leq 2$

G $0 \leq y \leq 4$

H $0 \leq x \leq 2$

J $0 \leq y \leq 2$

7 The function $f(x)$ is linear.

x	0	2	5	6
$f(x)$	-1	3	9	11

What is the value of $f(3)$?

- A 2
- B 4
- C 5
- D 11

8

x	y
-3	1
1	2
5	3

What is the slope of the line that passes through the points in the table?

- F -2
- G $-\frac{1}{2}$
- H $\frac{1}{4}$
- J 4

Section 1

- 9 Michael's total weekly pay includes a base salary plus a certain percent of his sales. The table below shows Michael's sales for 4 weeks and his total weekly pay. This data represents a linear function.

Michael's Pay

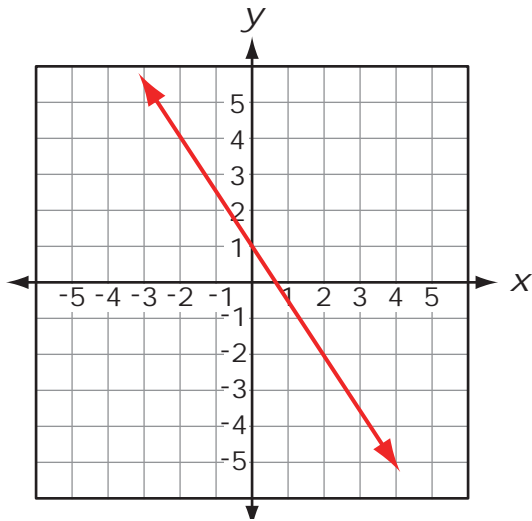
	Week 1	Week 2	Week 3	Week 4
Sales (x)	\$800	\$300	\$700	\$1,000
Total Pay (y)	\$560	\$460	\$540	\$600

What is Michael's weekly base salary?

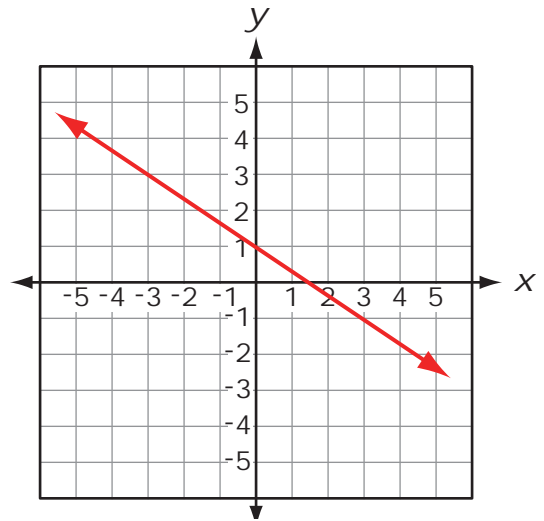
- A \$350
- B \$400
- C \$450
- D \$500

10 What is the graph of the line with a slope of $-\frac{2}{3}$ and a y-intercept of -1 ?

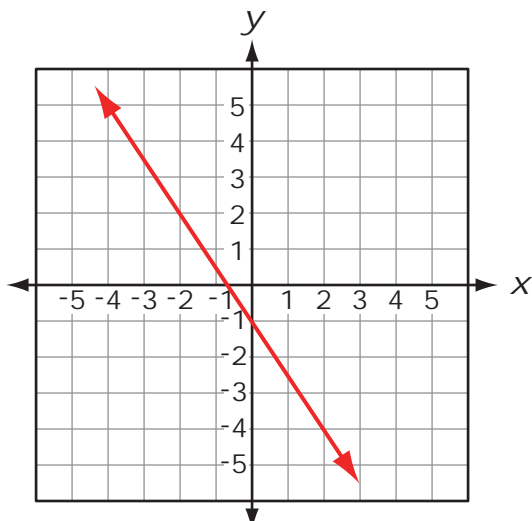
F



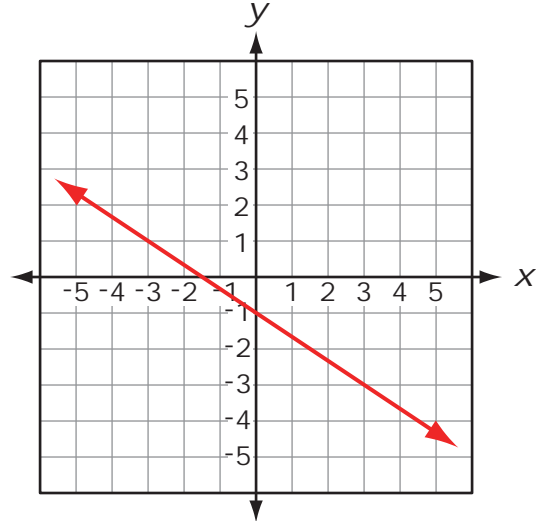
G



H

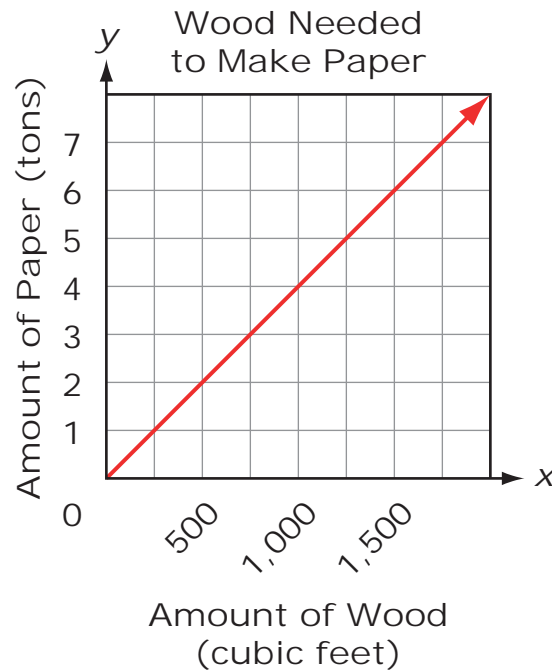


J



Section 1

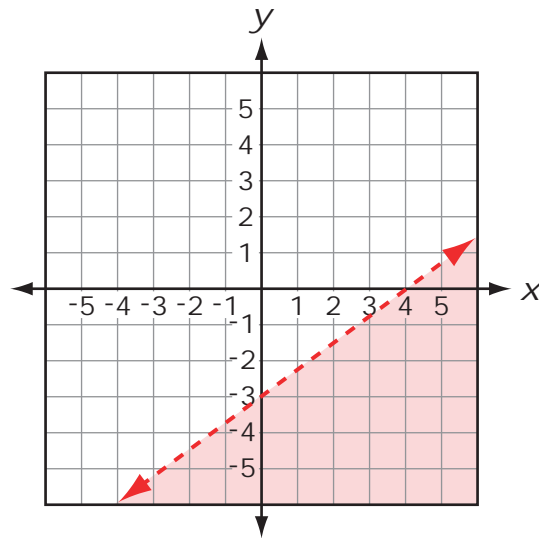
- 11 Manuel created this graph to show the approximate amounts of wood needed to produce different amounts of paper.



If x represents the approximate amount of wood in cubic feet and y represents the amount of paper in tons, which equation models this situation?

- A $y = 250x$
- B $y = \frac{x}{250}$
- C $y = 250 + x$
- D $y = 250 - x$

12



Which inequality does this graph represent?

- F** $3x - 4y < 12$
- G** $3x - 4y \leq 12$
- H** $3x - 4y > 12$
- J** $3x - 4y \geq 12$

Section 1

- 13** Students in Ms. Carl's and Mr. Fallon's biology classes participated in two projects about plant growth. The table shows the number of seeds each student received for the two projects.

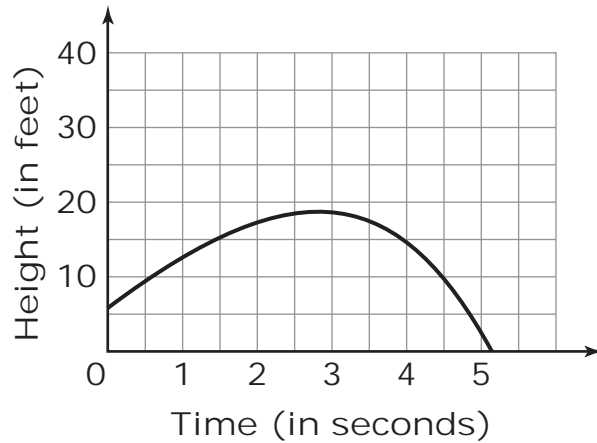
Number of Seeds Each Student Received

Class	First Project	Second Project
Ms. Carl's	5	9
Mr. Fallon's	3	6

During the first project, the teachers gave a combined total of 124 seeds to the students. During the second project, the teachers gave a combined total of 234 seeds to the students. How many students were in Mr. Fallon's biology class?

- A 14 students
- B 16 students
- C 18 students
- D 28 students

14 Look at the graph below.

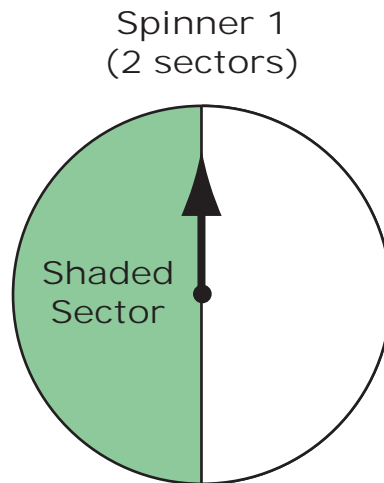


Which of these situations is most likely to be described by this graph?

- F** the path of a ball thrown from shoulder level
- G** the path of a bowling ball rolled down the lane
- H** the path of an airplane going from New York to Washington
- J** the path of a car driving over a mountain

Section 1

- 15** Jane played a probability game using two fair spinners that were divided into equal sectors. Each spinner had only one shaded sector. The probability of the arrow landing on the shaded sector of Spinner 1 was 50%.



The probability of the arrow landing on the shaded sectors of both spinners was 10%. Into how many sectors was Spinner 2 divided?

- A 2 sectors
- B 5 sectors
- C 8 sectors
- D 10 sectors

Use the information below to answer Numbers 16 through 18.

The table below shows the amount in Tom's savings account for a 5-week period.

Tom's Savings Account

Week	Balance
1	\$100
2	\$140
3	\$180
4	\$220
5	\$260

Section 1

16 What is Tom's mean balance for the 5 weeks represented in the table?

- F \$140
- G \$180
- H \$220
- J \$260

17 Tom graphs his balance (y) as a linear function of the number of weeks (x). What is the slope of this line?

- A 20
- B 40
- C 60
- D 100

18 If the pattern continues, what will Tom's balance be in week 29?

- F \$1,100
- G \$1,140
- H \$1,180
- J \$1,220

STOP

END OF SECTION 1

