Oklahoma Academic Standards 1.1 Sample Test Items:

Primary Process Standard: 7M2.1
Depth of Knowledge: 2
Correct Answer: B

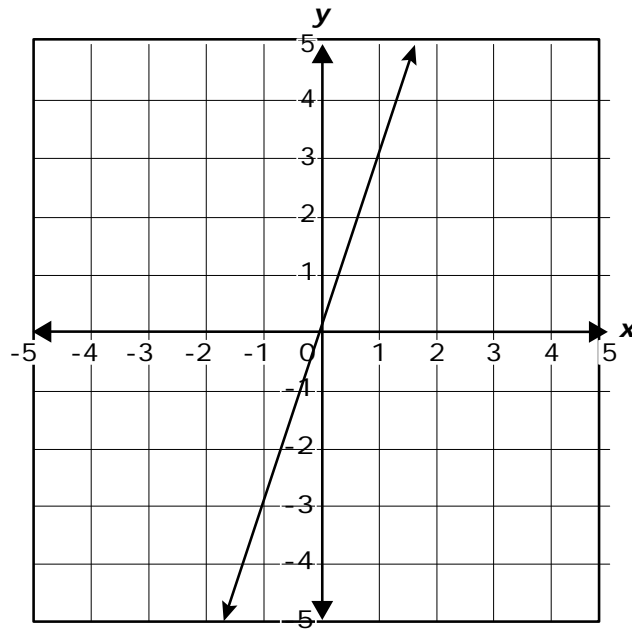| x	y
−3	6
0	3
3	0
6	-3

What happens to the value of *y* as the value of *x* increases?

A The value of *y* increases.

B The value of *y* decreases.

C The value of *y* stays the same.

D The value of *y* decreases and then increases.

Primary Process Standard: 7M2.1
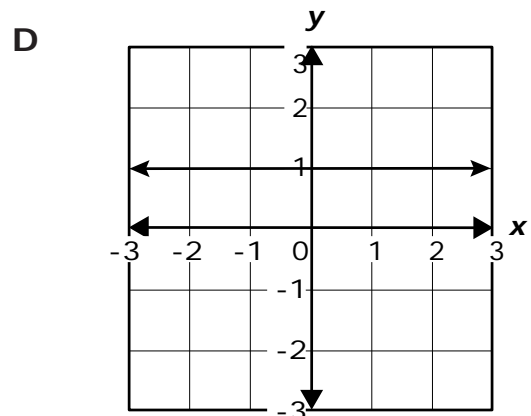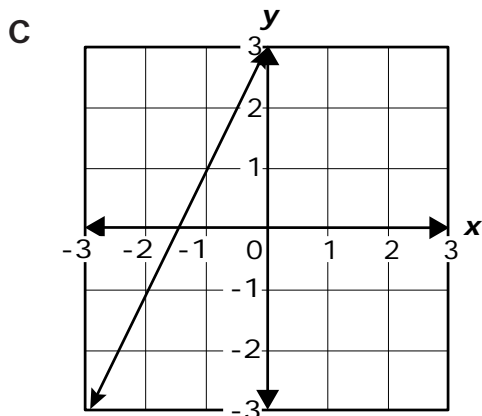Depth of Knowledge: 2
Correct Answer: A

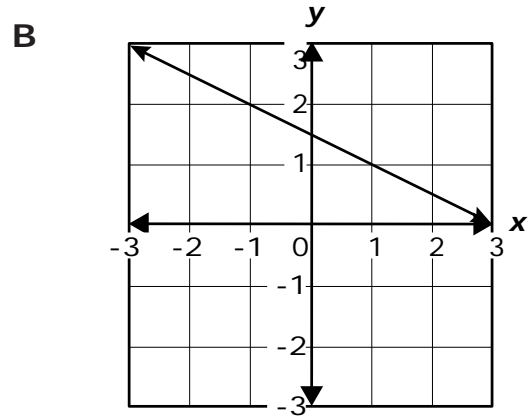**What is the equation of this graph?**

A $y = 3x$

B $y = -3x$

C $y = \dfrac{1}{3}x$

D $y = -\dfrac{1}{3}x$

Primary Process Standard: 7M2.3
Depth of Knowledge: 1
Correct Answer: C

Which graph has a positive slope?

A

B

C

D

Oklahoma Academic Standards 1.2 Sample Test Items:

Primary Process Standard: 7M1.5
Depth of Knowledge: 2
Correct Answer: C

$$4x - 10 = 18$$

What value of *x* makes this equation true?

A 2

B 4

C 7

D 8

Oklahoma Academic Standards 1.3 Sample Test Items:

Primary Process Standard: 7M1.5
Depth of Knowledge: 2
Correct Answer: A

$$2x + 3 = -13$$

What value of *x* makes this equation true?

A −8

B −5

C 5

D 8

Primary Process Standard: 7M5.1
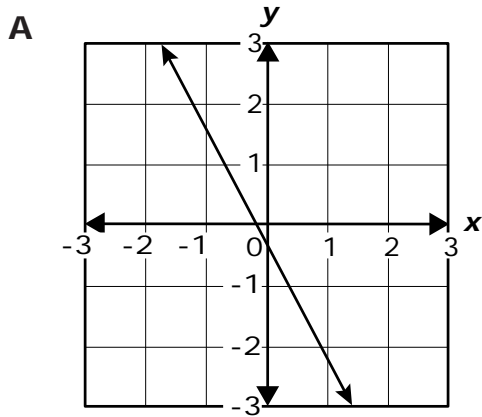Depth of Knowledge: 2
Correct Answer: A

Stacey earns $15 plus $2 for each newspaper she delivers each week. Which equation can Stacey use to find *c*, the number of customers she needs to earn $25 each week?

A $2c + 15 = 25$

B $15c + 2 = 25$

C $17c = 25$

D $2c = 25$

Oklahoma Academic Standards 1.3 Sample Test Items:

Primary Process Standard: 7M1.5
Depth of Knowledge: 1
Correct Answer: D

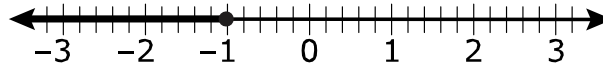**Which of these expresses all of the solutions to this inequality?**

$$4x \geq 68$$

A $x > 64$

B $x \geq 64$

C $x > 17$

D $x \geq 17$

Primary Process Standard: 7M5.3
Depth of Knowledge: 1
Correct Answer: B

Which inequality represents the solution set shown on the number line?

A $n < -1$

B $n \leq -1$

C $n > -1$

D $n \geq -1$

Primary Process Standard: 7M5.2
Depth of Knowledge: 3
Correct Answer: A

A school science club has less than $\dfrac{4}{5}$ the number of members as the math club. If the science club has 16 members, which inequality represents *m*, all of the possible numbers of math club members?

A $m > 20$

B $m < 20$

C $m > 13$

D $m < 13$

Oklahoma Academic Standards 2.1a Sample Test Items:

Primary Process Standard: 7M1.4
Depth of Knowledge: 1
Correct Answer: C

Maria recorded these temperatures during a
science experiment.

$$-6 \,°F, \; -5.8 \,°F, \; -5.1 \,°F, \; -15 \,°F, \; -6.4 \,°F$$

Which list shows the temperatures in order
from <u>least to greatest</u>?

A -5.1 °F, -5.8 °F, -6 °F, -6.4 °F, -15 °F

B -5.1 °F, -5.8 °F, -6.4 °F, -6 °F, -15 °F

C -15 °F, -6.4 °F, -6 °F, -5.8 °F, -5.1 °F

D -15 °F, -6 °F, -6.4 °F, -5.1 °F, -5.8 °F

Primary Process Standard: 7M4.2
Depth of Knowledge: 2
Correct Answer: C

The slopes of four hills are shown.

$$\frac{1}{2}, \frac{3}{5}, \frac{4}{6}, \frac{7}{12}$$

If the steepest slope is the greatest number, which slope is the steepest?

A $\frac{1}{2}$

B $\frac{3}{5}$

C $\frac{4}{6}$

D $\frac{7}{12}$

Primary Process Standard: 7M5.1
Depth of Knowledge: 2
Correct Answer: D

Adam, Dave, Kyla, and Dan gathered 100 eggs from the hen house. The table shows what part of the total each person gathered.

Eggs Gathered

Name	Part of the Total Gathered
Adam	$\frac{1}{4}$
Dave	0.31
Kyla	26%
Dan	$\frac{9}{50}$

Which lists the names in the order of the person who gathered the <u>most</u> eggs to the person who gathered the <u>fewest</u> eggs?

A Dan, Adam, Kyla, Dave

B Adam, Kyla, Dave, Dan

C Kyla, Dave, Dan, Adam

D Dave, Kyla, Adam, Dan

Oklahoma Academic Standards 2.1b Sample Test Items:

Primary Process Standard: 7M5.3
Depth of Knowledge: 1
Correct Answer: A

Which model represents 3^2?

A
● ● ●
● ● ●
● ● ●

B
● ●
● ●
● ●

C
● ● ● ●
● ● ● ●

D
● ●
● ● ●

Primary Process Standard: 7M1.6
Depth of Knowledge: 2
Correct Answer: D

Which of these models can be used to represent the area of a square with a side length of $\sqrt{4}$?

A

B

C

D

Primary Process Standard: 7M1.1
Depth of Knowledge: 2
Correct Answer: B

The square root of 154 is between which two integers?

A 11 and 12

B 12 and 13

C 14 and 15

D 15 and 16

Primary Process Standard: 7M1.4
Depth of Knowledge: 2
Correct Answer: B

Which whole number is <u>closest</u> to the value of $\sqrt{126}$?

A 10

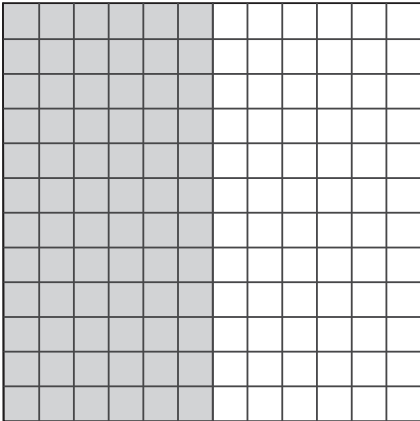**B** 11

C 12

D 13

Primary Process Standard: 7M5.4
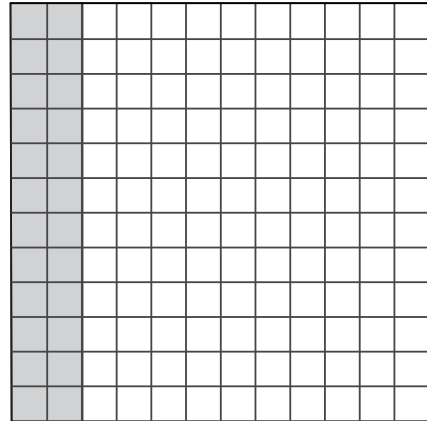Depth of Knowledge: 2
Correct Answer: D

Which model is shaded to represent $\sqrt{144}$?
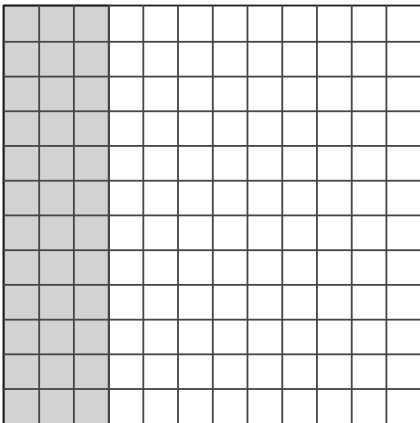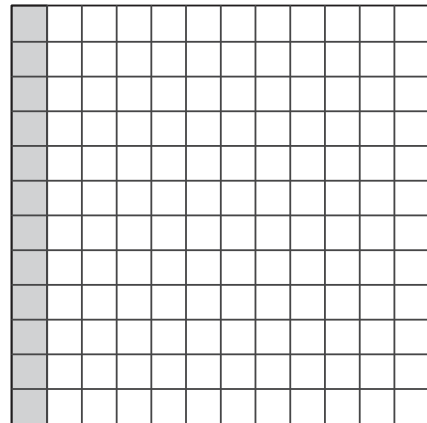
A

B

C

D

Primary Process Standard: 7M5.3
Depth of Knowledge: 3
Correct Answer: D

Josh has 56 identical square tiles. Which change would <u>best</u> allow Josh to combine all of the square tiles he has to create a single square?

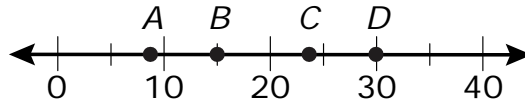**A** adding 6 tiles to the 56 he has

B adding 7 tiles to the 56 he has

C subtracting 6 tiles from the 56 he has

D subtracting 7 tiles from the 56 he has

Primary Process Standard: 7M3.1
Depth of Knowledge: 3
Correct Answer: D

Which point is <u>closest</u> to the value of $\sqrt{905}$ on the number line?

A point A

B point B

C point C

D point *D*

Oklahoma Academic Standards 2.2a Sample Test Items:

Primary Process Standard: 7M1.6
Depth of Knowledge: 2
Correct Answer: D

There are 42 students in Kim's band class. Of those students, 31 are girls. Which proportion can be used to find x, the percent of students in the class that are boys?

A $\dfrac{31}{42} = \dfrac{x}{100}$

B $\dfrac{11}{31} = \dfrac{x}{100}$

C $\dfrac{31}{11} = \dfrac{x}{100}$

D $\dfrac{11}{42} = \dfrac{x}{100}$

Primary Process Standard: 7M1.1
Depth of Knowledge: 2
Correct Answer: B

The ratio of time Tim spends on math homework to science homework is 5 to 4. If he spends 40 minutes on math homework, how many minutes does he spend on science homework?

A 20 minutes

B 32 minutes

C 60 minutes

D 90 minutes

Primary Process Standard: 7M1.1
Depth of Knowledge: 3
Correct Answer: B

A machine in a factory capped 14 bottles in 84 seconds. How many bottles will the machine cap in 2 <u>minutes</u> working at this same rate?

A 16 bottles

B 20 bottles

C 28 bottles

D 35 bottles

Oklahoma Academic Standards 2.2b Sample Test Items:

Primary Process Standard: 7M4.1
Depth of Knowledge: 2
Correct Answer: D

The Menendez family paid $45 for a meal at a restaurant. They left a tip that was 20% of the cost of the meal. How much was the tip?

A $0.20

B $0.90

C $2.00

D $9.00

Primary Process Standard: 7M1.5
Depth of Knowledge: 3
Correct Answer: A

Steven earns $12 an hour plus a 15% commission from every sale that he makes. During a two-week period, Steven worked 80 hours and made a total of $1,300 in sales. What was the total amount of Steven's paycheck for the two-week period?

A $1,155

B $1,495

C $2,260

D $2,340

Primary Process Standard: 7M4.1
Depth of Knowledge: 3
Correct Answer: C

Bonnie's Furniture Store had a sale on Saturday. Every item was reduced by 15%. Mike purchased these items.

Original Prices

- **one couch for $199.99**
- **two tables for $149.99 each**
- **one lamp for $99.99**

Which amount is <u>closest</u> to the total cost of Mike's purchases after the 15% discount and including the 6% sales tax?

A $410

B $510

C $540

D $640

Oklahoma Academic Standards 2.2c Sample Test Item:

Primary Process Standard: 7M1.5
Depth of Knowledge: 1
Correct Answer: D

$$21 - 36 \div (4 - 2^3)$$

What is the value of this expression?

A 4

B 12

C 18

D 30

Oklahoma Academic Standards 3.1 Sample Test Items:

Primary Process Standard: 7M2.3
Depth of Knowledge: 1
Correct Answer: B

Leticia drew a triangle with exactly two sides of equal length.
What type of triangle did Leticia draw?

A scalene

B isosceles

C equilateral

D equiangular

Primary Process Standard: 7M3.1
Depth of Knowledge: 1
Correct Answer: C

Which kind of triangle has angles with these three measures?

45°, 45°, and 90°

A equilateral

B obtuse

C right

D acute

Primary Process Standard: 7M2.3
Depth of Knowledge: 1
Correct Answer: B

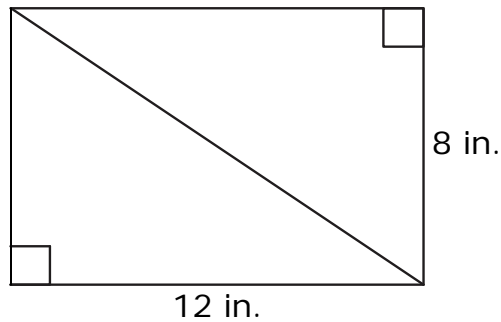### Which term <u>best</u> describes this quadrilateral?

A trapezoid

B rectangle

C rhombus

D square

Primary Process Standard: 7M2.3
Depth of Knowledge: 2
Correct Answer: C

The figure shows a rectangle divided into two congruent triangles.

8 in.

12 in.

Which term <u>best</u> describes these triangles?

A equilateral

B isosceles

C scalene

D obtuse

Primary Process Standard: 7M3.1
Depth of Knowledge: 3
Correct Answer: D

Which type of triangle is <u>always</u> similar to all other triangles of the same type?

A acute

B right

C scalene

D equilateral

Primary Process Standard: 7M2.3
Depth of Knowledge: 3
Correct Answer: A

Penny drew a quadrilateral with these characteristics.

- **all sides are of equal length**
- **the opposite sides are parallel**
- **two angles are acute**

What type of quadrilateral did Penny draw?
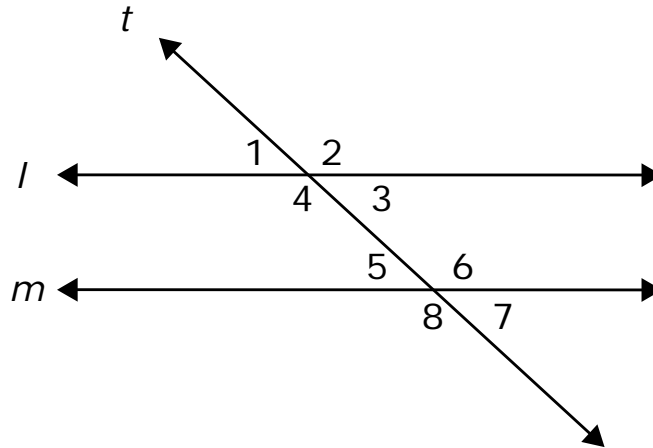
A rhombus

B rectangle

C square

D trapezoid

Oklahoma Academic Standards 3.2 Sample Test Items:

Primary Process Standard: 7M5.2
Depth of Knowledge: 1
Correct Answer: B

The drawing shows parallel lines *l* and *m* intersected by transversal *t*.

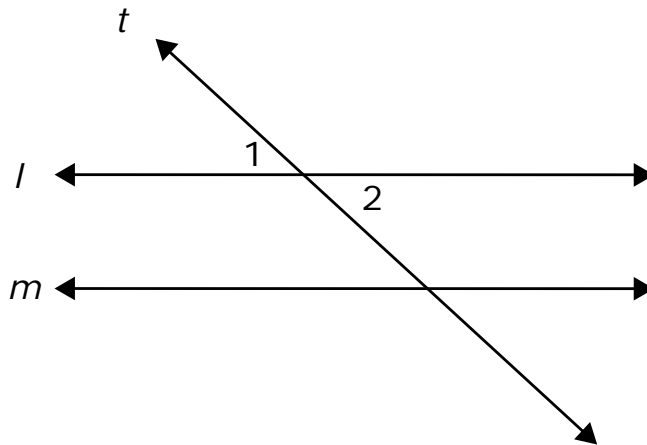**Which statement about angles 2 and 4 is true?**

A They are interior angles.

B They are vertical angles.

C They are corresponding angles.

D They are complementary angles.

Primary Process Standard: 7M3.3
Depth of Knowledge: 2
Correct Answer: B

Line *l* and line *m* are parallel. The measure of angle 1 is 45 degrees.
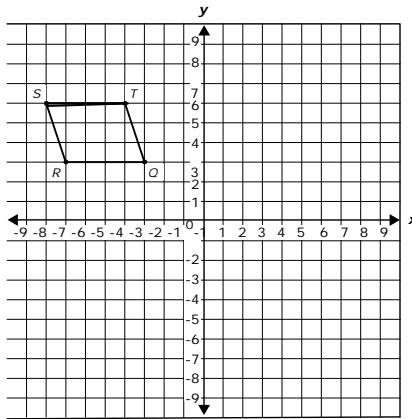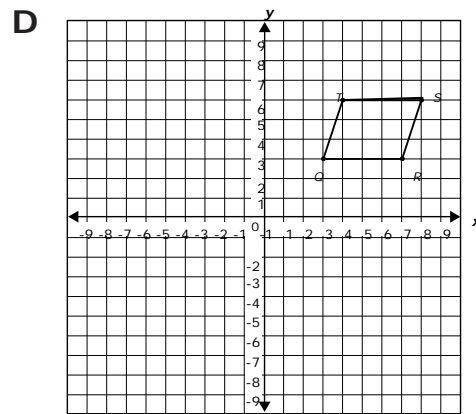

What is the measure of angle 2?

A 35 degrees

B 45 degrees

C 55 degrees

D 135 degrees

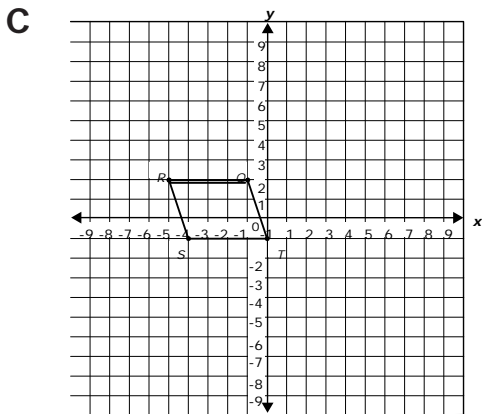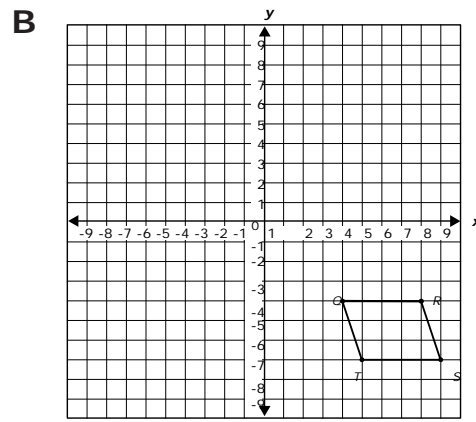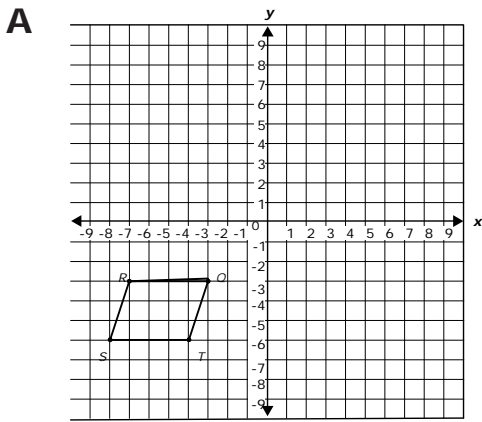**Oklahoma Academic Standards 3.3 Sample Test Items:**

Primary Process Standard: 7M5.4
Depth of Knowledge: 2
Correct Answer: D

Which <u>best</u> shows the position of the parallelogram *QRST* after it is reflected across the *y*-axis to form parallelogram *Q'R'S'T'* ?
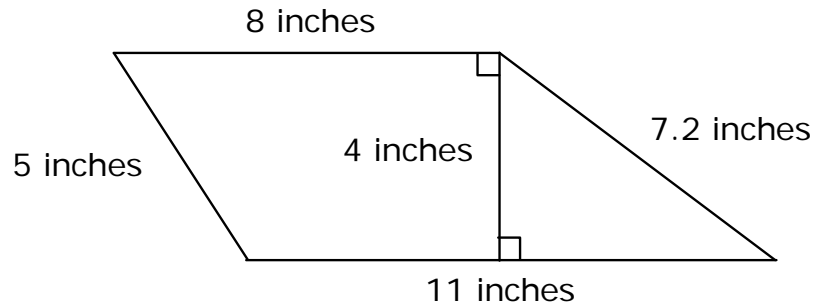
A

B

C

D

Oklahoma Academic Standards 4.1 Sample Test Items:

Primary Process Standard: 7M5.4
Depth of Knowledge: 2
Correct Answer: C

Eli glued a piece of string along the perimeter of this figure.

8 inches

7.2 inches

5 inches   4 inches

11 inches

What is the smallest length of string Eli could use?
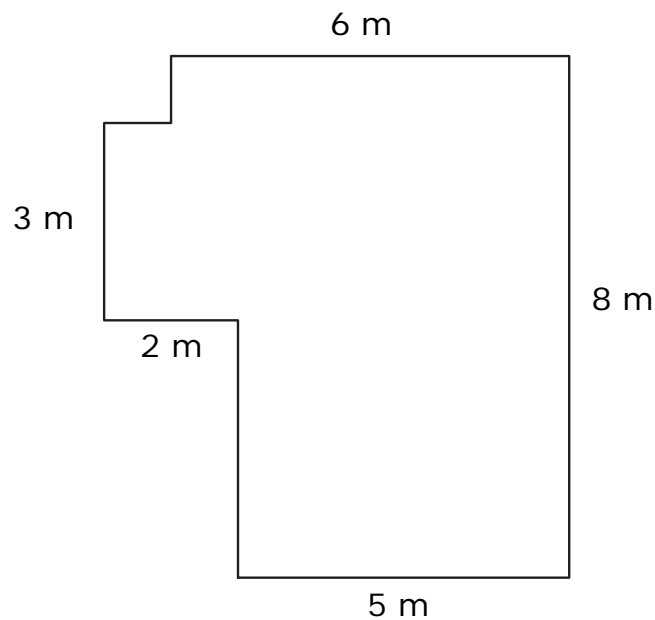
A 24.2 inches

B 25.2 inches

C 31.2 inches

D 35.2 inches

Primary Process Standard: 7M1.6
Depth of Knowledge: 2
Correct Answer: D

The figure shown is made up of line segments that meet at right angles.

What is the perimeter of the figure in meters (m)?

A 24 m

B 26 m

C 28 m

D 30 m

Primary Process Standard: 7M1.6
Depth of Knowledge: 2
Correct Answer: A

> **The length of a rectangle is 18 inches. If the perimeter of the rectangle is 60 inches, what is the width, in inches (in.)?**
>
> **A** 12 in.
>
> **B** 21 in.
>
> **C** 24 in.
>
> **D** 42 in.

Oklahoma Academic Standards 4.2 Sample Test Items:

Primary Process Standard: 7M1.1
Depth of Knowledge: 2
Correct Answer: C

Maria walked around a circular fountain one time. The radius of the fountain is 10 meters. What approximate distance did Maria walk around the fountain?

A 15 meters

B 31 meters

C 63 meters

D 314 meters

Primary Process Standard: 7M1.1
Depth of Knowledge: 1
Correct Answer: B

A circular track has a circumference of 200π meters. What is the radius of the circular track?

A 50 meters

B 100 meters

C 200 meters

D 400 meters

Primary Process Standard: 7M4.1
Depth of Knowledge: 3
Correct Answer: A

Tomas used a string with a piece of chalk tied to one end to draw a circle on the sidewalk. He held one end of the string on the sidewalk and then drew the circle using the chalk tied to the other end. The area of the circle was about 113 square inches. Which is <u>closest</u> to the length of the string?

$$A_{circle} = \pi r^2$$

A 6 in.

B 12 in.

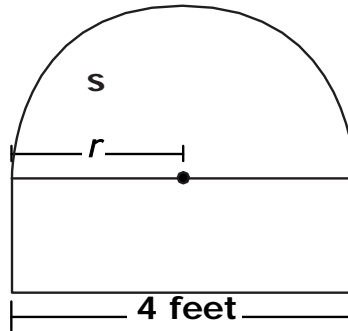**C** 18 in.

D 36 in.

Oklahoma Academic Standards 4.3 Sample Test Items:

Primary Process Standard: 7M4.2
Depth of Knowledge: 3
Correct Answer: A

The figure shown is made up of a rectangle and a semicircle.

What is the area, in square feet (sq ft), of the semicircle?

$$A_{circle} = \pi r^2$$
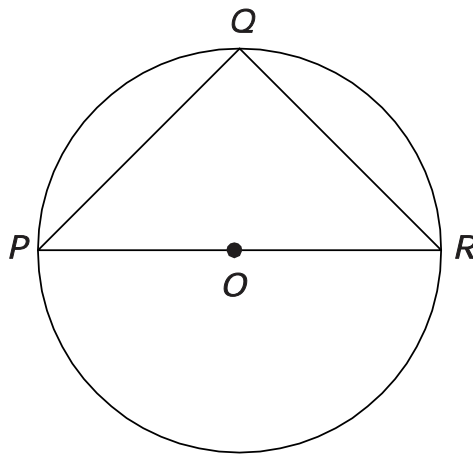
A 2π sq ft

B 4π sq ft

C 8π sq ft

D 16π sq ft

Primary Process Standard: 7M3.4
Depth of Knowledge: 3
Correct Answer: A

The diagram shows isosceles triangle *PQR*. Each vertex of triangle *PQR* is a point on circle *O*.

If the circumference of circle *O* is 10π units, what is the <u>area</u> of triangle *PQR*?

$$C_{circle} = 2\pi r$$

$$A_{triangle} = \frac{1}{2}bh$$

A 25 sq units

B 30 sq units

C 50 sq units

D 100 sq units

Oklahoma Academic Standards 5.1 Sample Test Items:

Primary Process Standard: 7M5.1
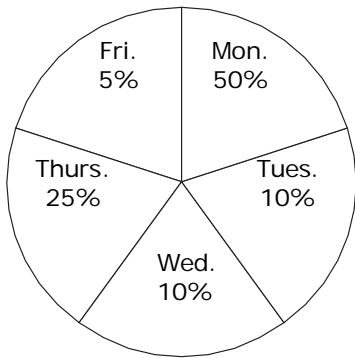Depth of Knowledge: 1
Correct Answer: B

A group of seventh graders were surveyed about their favorite night to watch TV. This table shows the results of the survey.
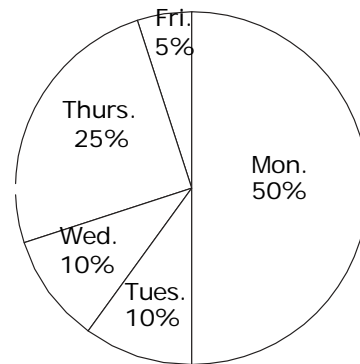
TV Viewing

Night	Percent Favoring
Monday	50%
Tuesday	10%
Wednesday	10%
Thursday	25%
Friday	5%

Which graph shows the information from the table?

A   **TV Viewing**

Fri. 5%, Mon. 50%, Tues. 10%, Wed. 10%, Thurs. 25%

B   **TV Viewing**

Fri. 5%, Thurs. 25%, Wed. 10%, Tues. 10%, Mon. 50%

C   **TV Viewing**

Fri. 5%, Thurs. 25%, Wed. 10%, Tues. 10%, Mon. 50% Wed.

D   **TV Viewing**

Fri. 5%, Thurs. 25%, 10%, Tues. 10%, Mon. 50%
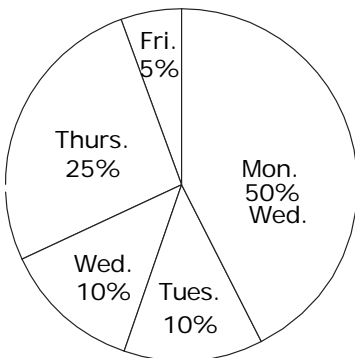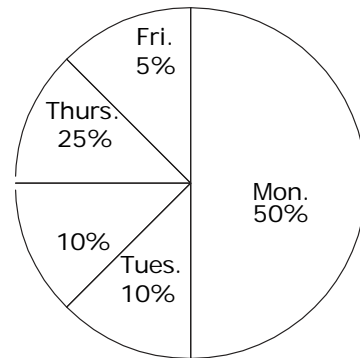
Primary Process Standard: 7M5.1
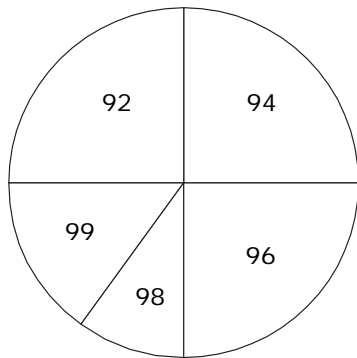Depth of Knowledge: 2
Correct Answer: B

Jason recorded the high temperatures on school days last September. This table shows Jason's results.

High Temperatures

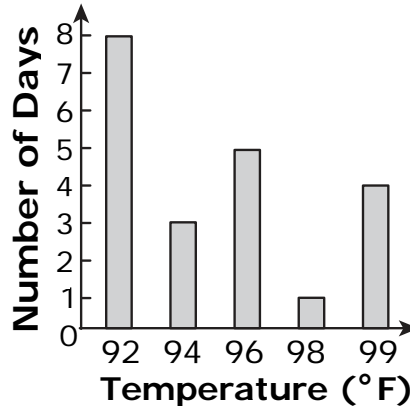| Temperature (F°)	Number of Days
92	8
94	3
96	5
98	1
99	4

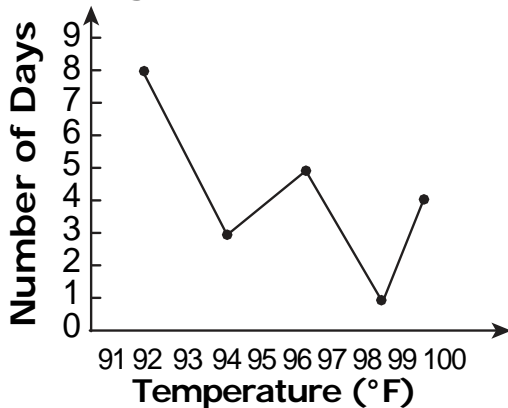**Which graph best shows the data in this table?**

A **High Temperatures**

B **High Temperatures**

C **High Temperatures**

D **High Temperatures**
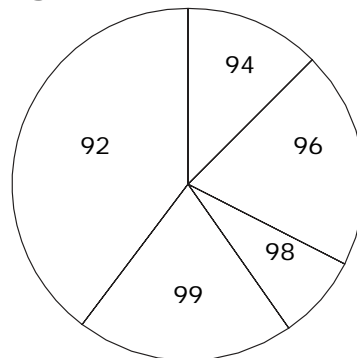
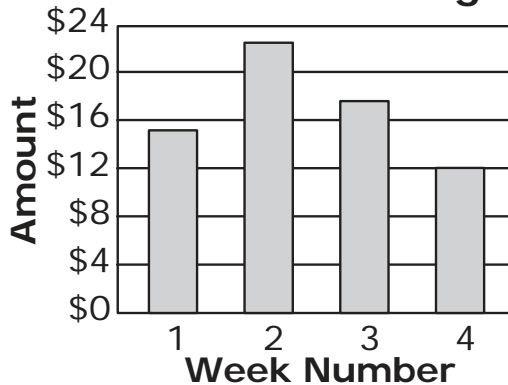Primary Process Standard: 7M5.1
Depth of Knowledge: 2
Correct Answer: A

Kendra earns money for helping people in her neighborhood. The amount of pay Kendra earned for each week for 4 weeks is listed below.

- **$15 in week 1**
- **$22 in week 2**
- **$18 in week 3**
- **$12 in week 4**

Which graph best represents the pay Kendra earned for the 4 weeks?

A

B

C

D
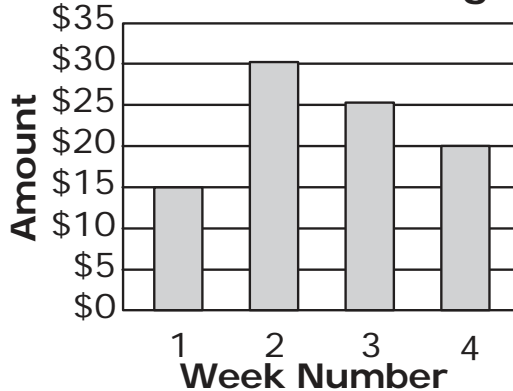
Oklahoma Academic Standards 5.2 Sample Test Items:

Primary Process Standard: 7M5.3
Depth of Knowledge: 2
Correct Answer: C

When Norma bought lunch at a restaurant, she was given a scratch-off game card with this statement:

> **1 out of 8 cards is a winner!**

What is the probability that Norma did <u>not</u> receive a winning game card?

A 8%

B 12.5%

C 87.5%

D 92%

Primary Process Standard: 7M3.4
Depth of Knowledge: 2
Correct Answer: D

As part of a probability experiment, Susannah rolled two fair number cubes, one after the other. Each cube had its faces numbered 1 through 6. What is the probability that the first cube landed on 5 <u>and</u> the second cube landed on 6?

A $\dfrac{1}{6}$

B $\dfrac{1}{12}$

C $\dfrac{1}{18}$

D $\dfrac{1}{36}$

Primary Process Standard: 7M1.3
Depth of Knowledge: 2
Correct Answer: C

The prize wheel at the school fair is divided into 6 sections of equal size. The sections are numbered 1 through 6.

Prize Wheel
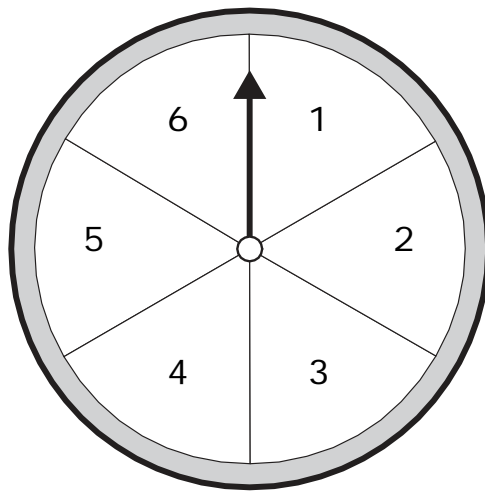
If the arrow is spun once, what is the probability that it will stop on a section labeled with an even number divisible by 3 <u>or</u> a section labeled with an odd number?

A $\dfrac{1}{6}$

B $\dfrac{1}{2}$

C $\dfrac{2}{3}$

D $\dfrac{5}{6}$

Primary Process Standard: 7M5.4
Depth of Knowledge: 2
Correct Answer: C

The graph shows the results of a survey given to a group of students.

Family Size
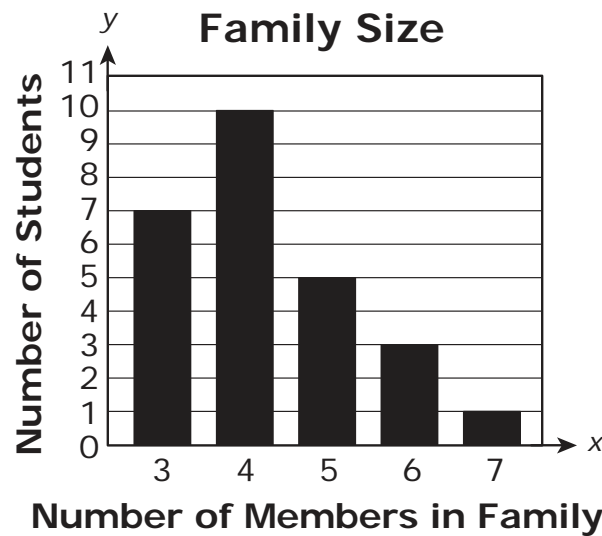
If one student is picked at random, what is the probability that the student has a family with 6 _or_ 7 members?

A $\dfrac{1}{26}$

B $\dfrac{3}{26}$

C $\dfrac{4}{26}$
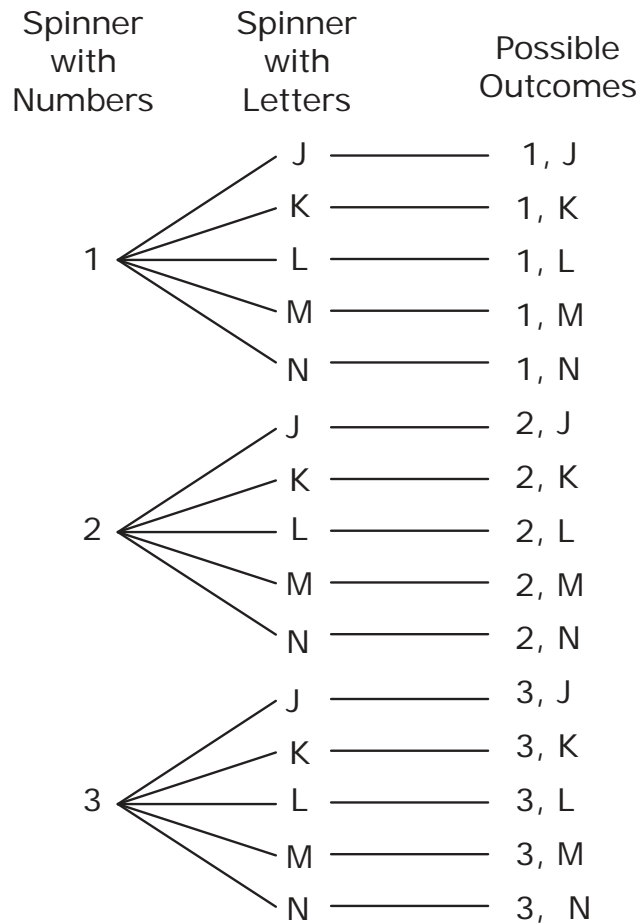
D $\dfrac{7}{26}$

Primary Process Standard: 7M5.4
Depth of Knowledge: 2
Correct Answer: B

 Pam is playing a game with two spinners. One spinner has 3 sections of equal size, each labeled with a number 1 through 3. The other spinner has 5 sections of equal size, each labeled with a letter J through N. She drew this tree diagram to show the possible outcomes.

<div align="center">

Spinner with Numbers	Spinner with Letters	Possible Outcomes

</div>

1	J	1, J
	K	1, K
	L	1, L
	M	1, M
	N	1, N
2	J	2, J
	K	2, K
	L	2, L
	M	2, M
	N	2, N
3	J	3, J
	K	3, K
	L	3, L
	M	3, M
	N	3, N

 What is the probability of the arrow on either spinner landing on a 2 <u>or</u> a K on the next spin?

A $\dfrac{1}{5}$ **B** $\dfrac{7}{15}$
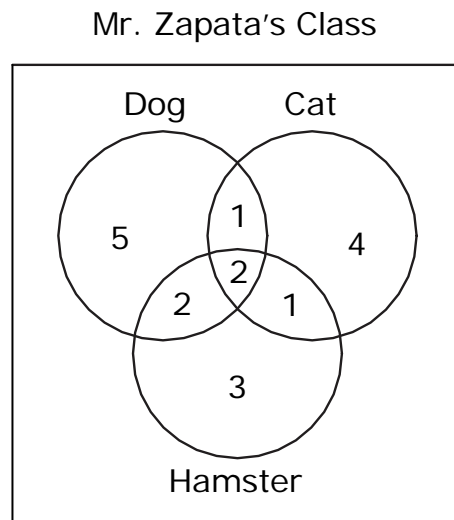
C $\dfrac{1}{3}$ **D** $\dfrac{5}{6}$

Primary Process Standard: 7M5.4
Depth of Knowledge: 2
Correct Answer: C

There are 20 students in Mr. Zapata's class. The Venn diagram shows the pets that some of the students have.

Mr. Zapata's Class

Dog   Cat

5   1   4

2

2   1

3

Hamster

If Mr. Zapata chooses a student at random, what is the probability that the student has a dog _or_ a cat?

A $\dfrac{3}{20}$

B $\dfrac{9}{20}$

C $\dfrac{3}{4}$

D $\dfrac{5}{6}$

Oklahoma Academic Standards 5.3 Sample Test Items:

Primary Process Standard: 7M3.1
Depth of Knowledge: 2
Correct Answer: B

18, 22, 20, 17, 28

If the number 21 is added to this set of data, how is the mean affected?

A The mean increases by 1.

B The mean remains the same.

C The mean decreases by 1.

D The mean becomes the same as the mode.

Primary Process Standard: 7M3.4
Depth of Knowledge: 2
Correct Answer: B

Lin's first 4 quizzes had a mean score of 80%. If he scores 100% on his next quiz, what will be his mean quiz score for these 5 quizzes?

A 82%

B 84%

C 86%

D 90%

Primary Process Standard: 7M3.3
Depth of Knowledge: 2
Correct Answer: D

There are 5 students in Tamika's chorus group. The median score made by the group on the last test was 85. The scores for 4 students are shown.

$$85, \ 80, \ 95, \ 80$$

What could have been the score for the 5th student?

A 70

B 75

C 80

D 90

Primary Process Standard: 7M3.2
Depth of Knowledge: 3
Correct Answer: C

The table shows the number of meals sold in a school cafeteria to 7th graders each day for the first 4 days of a week.

Cafeteria Meals Sold to 7th Graders

Day	Number of Meals
Monday	64
Tuesday	71
Wednesday	73
Thursday	60
Friday	?

If the mean number of meals sold for all 5 days was 69, how many meals did the cafeteria sell on Friday?

A 67 meals

B 69 meals

C 77 meals

D 82 meals