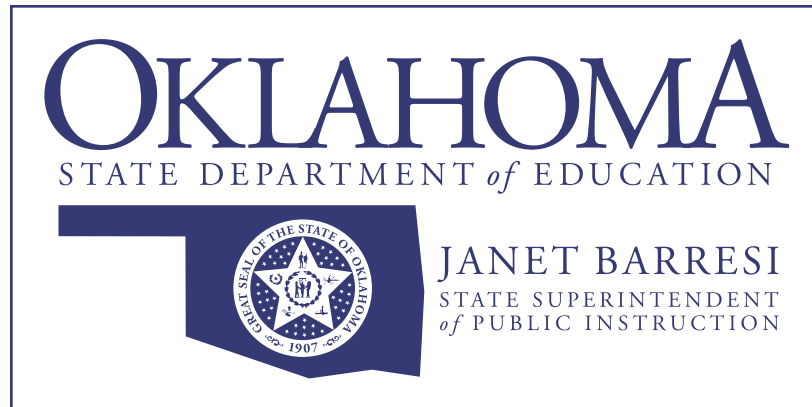


# Oklahoma School Testing Program



Oklahoma Core Curriculum Tests

**2011–2012**  
**Released Items**

End-of-Instruction  
ACE Geometry

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**Oklahoma State Department of Education**  
**Oklahoma City, Oklahoma**

**PEARSON**

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# Section 1

# Section 1

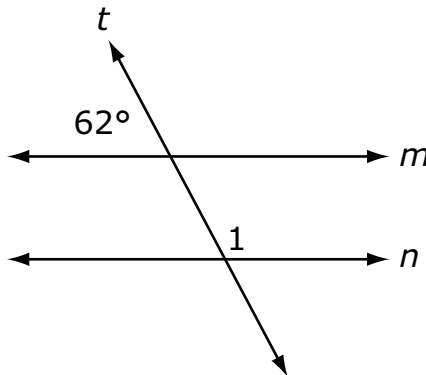
## Directions

Read each question and choose the best answer.

**1** Stephen, Jon, and Pablo finished the 200-meter dash in the first three places. If Jon finished before Stephen, and Stephen did not finish 3<sup>rd</sup>, in which order did Stephen, Jon, and Pablo finish? 1070091\_1

- A Jon: 1<sup>st</sup>, Stephen: 2<sup>nd</sup>, Pablo: 3<sup>rd</sup>
- B Jon: 1<sup>st</sup>, Pablo: 2<sup>nd</sup>, Stephen: 3<sup>rd</sup>
- C Stephen: 1<sup>st</sup>, Pablo: 2<sup>nd</sup>, Jon: 3<sup>rd</sup>
- D Stephen: 1<sup>st</sup>, Jon: 2<sup>nd</sup>, Pablo: 3<sup>rd</sup>

**2** Transversal  $t$  cuts parallel lines  $m$  and  $n$ . 101108\_1

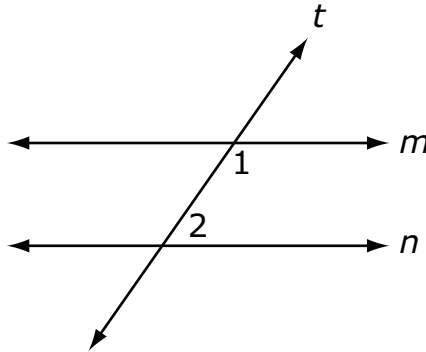


What is the measure of  $\angle 1$ ?

- F  $118^\circ$
- G  $121^\circ$
- H  $152^\circ$
- J  $162^\circ$

3

101065\_2



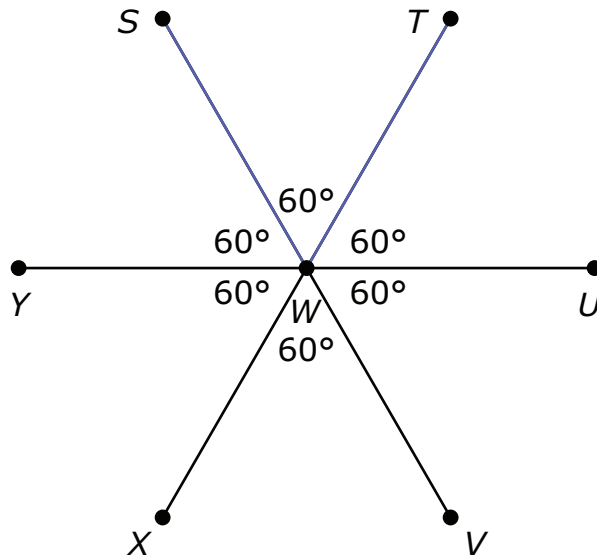
Which statement must be true about  $\angle 1$  and  $\angle 2$  in order for line  $m$  and line  $n$  to be parallel?

- A Their measures must be equal.
- B Their measures must be supplementary.
- C Their measures must be complementary.
- D The measure of  $\angle 1$  must be greater than the measure of  $\angle 2$ .

## Section 1

4

100029\_4

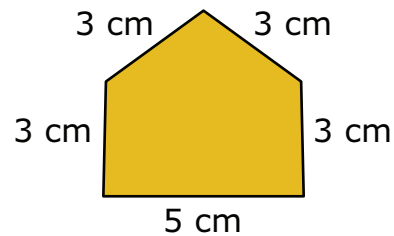


Which angle is vertical to  $\angle SWT$ ?

- F  $\angle SWY$
- G  $\angle TWU$
- H  $\angle YWX$
- J  $\angle XWV$

5

101066\_2



**What type of figure is shown?**

- A convex hexagon
- B convex pentagon
- C concave hexagon
- D concave pentagon

- 6 The perimeter of a square, in centimeters, is equal to the circumference of a circle in centimeters. The radius of the circle is 3 centimeters. To the nearest square centimeter, what is the area of the square? (Use 3.14 for  $\pi$ .)

1100043\_3

$$C = 2\pi r$$

- F  $6 \text{ cm}^2$
- G  $19 \text{ cm}^2$
- H  $22 \text{ cm}^2$
- J  $50 \text{ cm}^2$

## Section 1

7 If  $\triangle RST$  and  $\triangle XYZ$  are similar scalene triangles, which of the following statements is not true?

11000050\_2

A  $\angle R \cong \angle X$

B  $\angle T \cong \angle Y$

C  $\frac{RS}{XY} = \frac{ST}{YZ}$

D  $\frac{RT}{ST} = \frac{XZ}{YZ}$

8 The ratio of the perimeter of rectangle P to the perimeter of rectangle Q is 2:5. The area of rectangle P is 12 square feet. What is the area of rectangle Q?

10900018\_4

F 1.92 square feet

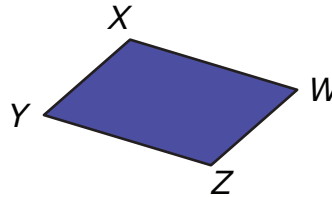
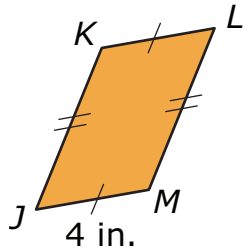
G 4.80 square feet

H 30.00 square feet

J 75.00 square feet



- 9 Parallelograms  $JKLM$  and  $WXYZ$  are congruent. The perimeter of  $JKLM$  is 20 inches. 101120\_2

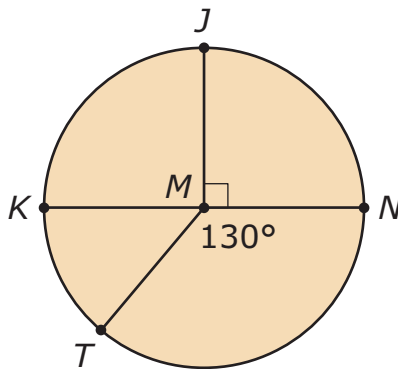


What is the length of  $\overline{WX}$ ?

- A 5 inches
- B 6 inches
- C 12 inches
- D 16 inches

10

10700508\_3



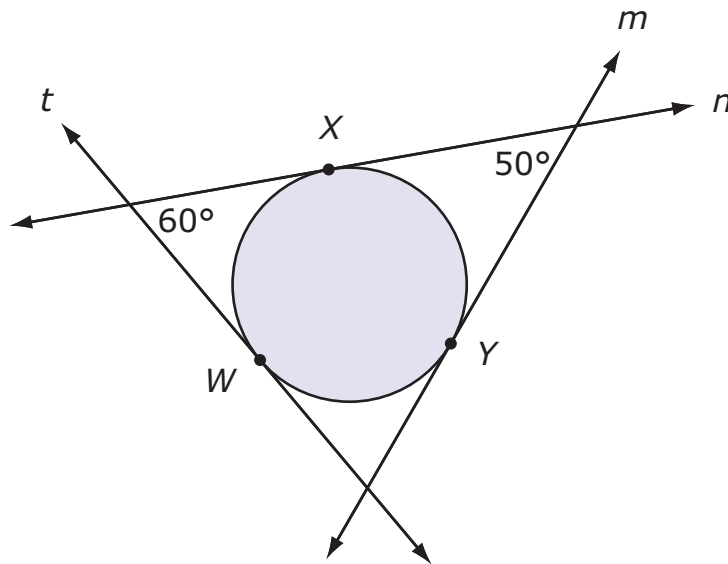
In this circle,  $M$  is the center, and  $\overline{KN}$  is a diameter. What is the measure of arc  $NT$ ?

- F  $65^\circ$
- G  $90^\circ$
- H  $130^\circ$
- J  $210^\circ$

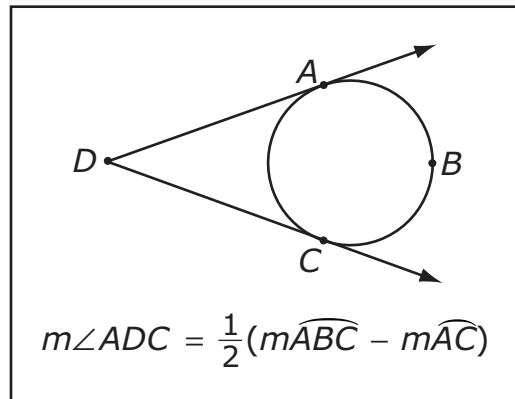
# Section 1

11 Lines  $t$ ,  $m$ , and  $n$  are tangent to the circle at  $W$ ,  $Y$ , and  $X$ .

10900122\_2



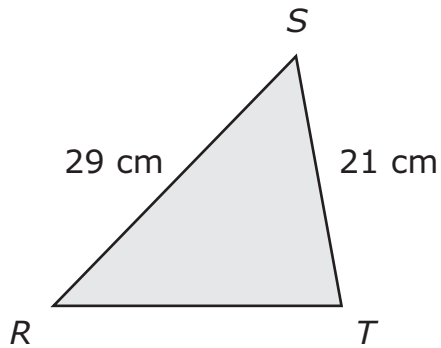
What is the measure of  $\widehat{WY}$ ?



- A  $100^\circ$
- B  $110^\circ$
- C  $120^\circ$
- D  $130^\circ$

12 Triangle  $RST$  is an acute triangle.

11000100\_4

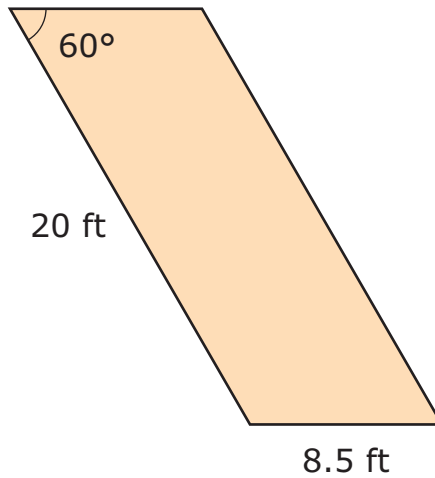


Which measurement could be the length of  $\overline{RT}$ ?

- F 12 cm
- G 15 cm
- H 20 cm
- J 24 cm

## Section 1

- 13 The diagram shows the dimensions of a parking space in the shape of a parallelogram. 11000112\_3

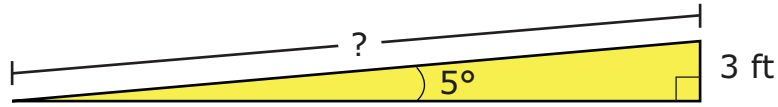


**What is the approximate area of the parking space?**

- A 62.6 square feet
- B 120.2 square feet
- C 147.2 square feet
- D 170.0 square feet

- 14 A ramp is 3 feet high. The angle of elevation is 5 degrees.

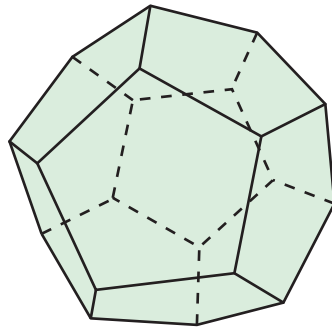
100047\_4



How long is the ramp to the nearest foot?

$$\begin{aligned}\sin 5^\circ &\approx 0.087 \\ \cos 5^\circ &\approx 0.996 \\ \tan 5^\circ &\approx 0.087\end{aligned}$$

- F 5 ft
- G 16 ft
- H 20 ft
- J 34 ft



**Which type of polyhedron is shown?**

- A** decahedron
- B** dodecahedron
- C** hexahedron
- D** pentahedron

- 16 Heather uses a cone-shaped bag to hold hot chocolate mix. The bag has a height of 18 centimeters and a radius of 3 centimeters. What is the volume of the hot chocolate mix in terms of  $\pi$ ? 101026\_2

$$V = \frac{1}{3}\pi r^2 h$$

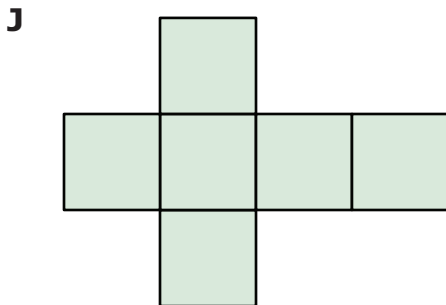
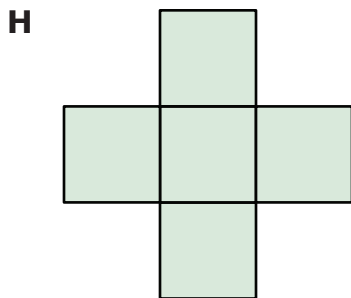
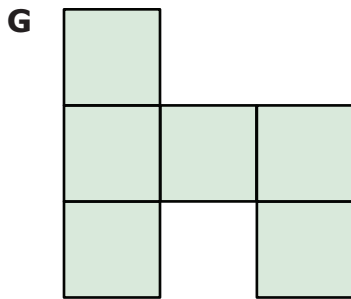
- F  $36\pi \text{ cm}^3$
- G  $54\pi \text{ cm}^3$
- H  $108\pi \text{ cm}^3$
- J  $162\pi \text{ cm}^3$
- 17 Two similar regular polyhedra have surface areas  $16 \text{ cm}^2$  and  $64 \text{ cm}^2$ . 10700547\_1  
What is the ratio of their edge lengths?

- A 1:2
- B 1:4
- C 1:8
- D 1:16

# Section 1

18 Which net best represents a cube?

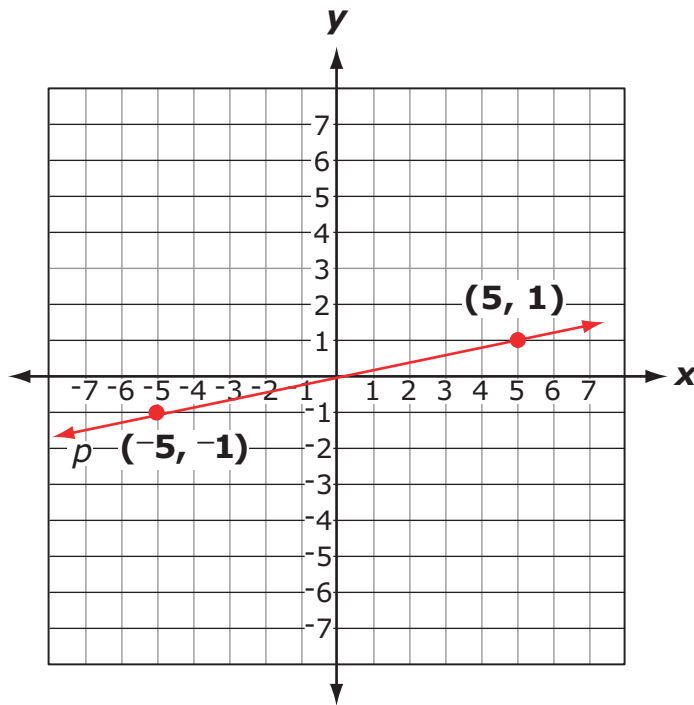
100065\_4





- 19 Kendra drew line  $p$  on this coordinate system.

10700145\_3



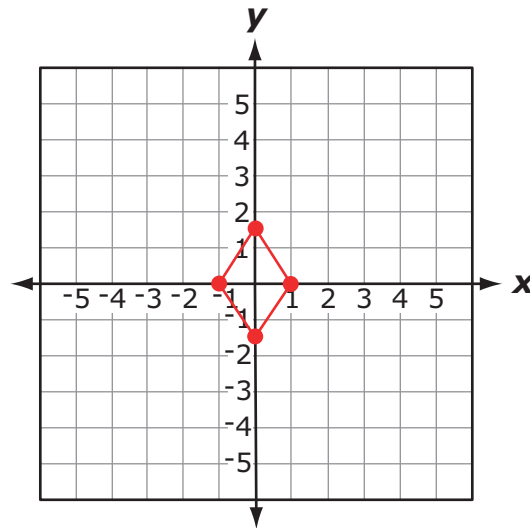
Which equation represents a line that is parallel to the line Kendra drew?

- A  $y = 5x - 1$
- B  $y = -5x + 1$
- C  $y = \frac{1}{5}x - 3$
- D  $y = -\frac{1}{5}x + 2$

## Section 1

- 20 Ethan drew this shape on the coordinate system. He wants to use a transformation that will change the position of the shape.

10700151\_3



**Which transformation should Ethan perform?**

- F** reflection across the  $x$ -axis
- G** reflection across the  $y$ -axis
- H** rotation of  $90^\circ$  clockwise about the origin
- J** rotation of  $180^\circ$  counterclockwise about the origin



**STOP**

**END OF SECTION 1**

