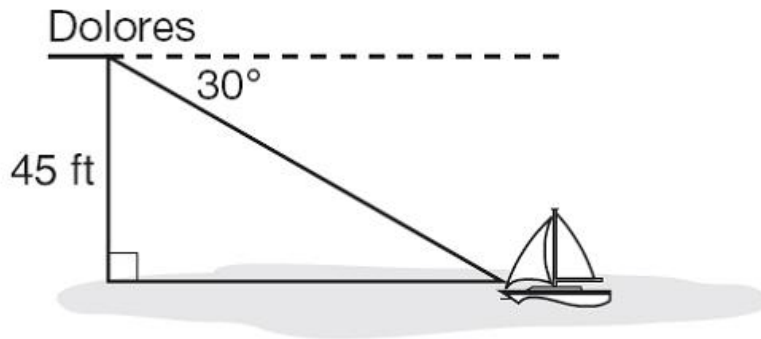DD7

1.
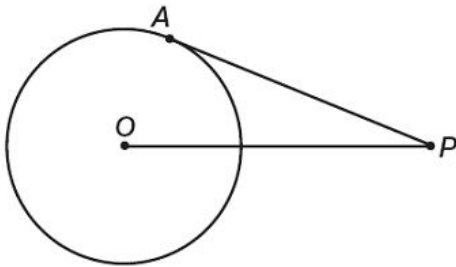
Dolores is on a bridge that is 45 feet above a
lake. She sees a boat at a 30° angle of
depression. What is Dolores's approximate
horizontal distance from the boat?

A 90 ft

B 26 ft

C 32 ft

D 78 ft

2.

Point P is 26 centimeters from the center of a
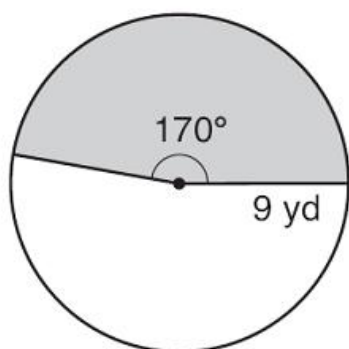circle with a radius of 10 cm.

Find the length of the tangent AP drawn to
circle O from point P.

A 12 cm

B 24 cm

C 16 cm

D 28 cm

3.

The designated fishing area of a circular pond at a park is marked with two ropes attached to a buoy at the center of the pond. Each rope is 9 yards long, and together they form an angle of 170°.

What is the approximate area of the sector that is designated for fishing?

A   120 yd^2

B   140 yd^2

C   134 yd^2

D   127 yd^2

4.

What is the length of the line segment with endpoints $(7, -3)$ and $(-5, 2)$?

Record your answer and fill in the bubbles. B sure to use the correct place value.

5.

The graph of which function is not congruent to the graph of $y = 2x^2 + 1$?

A $y = -2x^2 + 1$

B $y = x^2 + 1$

C $y = 2x^2 - 1$

D $y = -2x^2 - 1$

6.

What is the solution set for the equation $x = x^2 - 42$?

A $\{-6, 7\}$

B $\{-7, 6\}$

C $\{-\sqrt{42}, \sqrt{42}\}$

D $\{-6\sqrt{7}, 6\sqrt{7}\}$

7.

Mr. Kumar needs $0.50 to pay for the newspaper. He has 6 dimes, 5 quarters, and 4 nickles in his pocket. If Mr. Kumar reaches into his pocket and randomly takes out 2 coins one at a time without putting either one back, what is the probability that he will select the 2 quarters he needs?
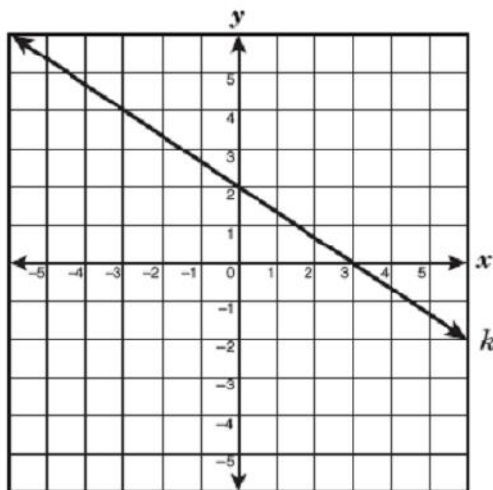
A $\dfrac{3}{5}$

B $\dfrac{4}{45}$

C $\dfrac{2}{21}$

D $\dfrac{13}{21}$

8.

Which equation represents a line perpendicular to line k graphed below?

A $y = \frac{2}{3}x - 1$

B $y = \frac{3}{2}x - 4$

C $y = -\frac{3}{2}x + 3$

D $y = -\frac{2}{3}x + 5$