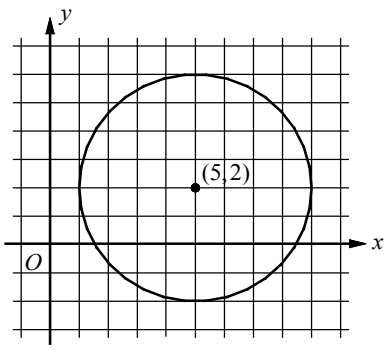
Exercises - Circles in the Coordinate Plane

1



Which of the following equations represents the equation of the circle shown in the xy- plane above?

A) $(x+5)^2+(y+2)^2=4$

B) $(x-5)^2+(y-2)^2=4$

C) $(x+5)^2+(y+2)^2=16$

D) $(x-5)^2+(y-2)^2=16$

2

Which of the following is an equation of a circle in the xy- plane with center $(-2,0)$ and a radius with endpoint $(0,\frac{3}{2})$?

A) $x^2+(y-\frac{3}{2})^2=\frac{5}{2}$

B) $x^2+(y-\frac{3}{2})^2=\frac{25}{4}$

C) $(x+2)^2+y^2=\frac{25}{4}$

D) $(x-2)^2+y^2=\frac{25}{4}$

3

$$x^2+12x+y^2-4y+15=0$$

The equation of a circle in the xy- plane is shown above. Which of the following is true about the circle?

A) center $(-6,2)$, radius $=5$

B) center $(6,-2)$, radius $=5$

C) center $(-6,2)$, radius $=\sqrt{15}$

D) center $(6,-2)$, radius $=\sqrt{15}$

4

Which of the following represents an equation of a circle whose diameter has endpoints $(-8,4)$ and $(2,-6)$?

A) $(x-3)^2+(y-1)^2=50$

B) $(x+3)^2+(y+1)^2=50$

C) $(x-3)^2+(y-1)^2=25$

D) $(x+3)^2+(y+1)^2=25$

5

$$x^2+2x+y^2-4y-9=0$$

The equation of a circle in the xy- plane is shown above. If the area of the circle is $k\pi$, what is the value of k ?