

SATPREP

Assignment : Equation of Circles

Identify the center and radius of each.

1) $x^2 + y^2 = 169$

2) $x^2 + y^2 = 9$

3) $(x - 3)^2 + (y + 8)^2 = 112$

4) $(x - 2)^2 + (y - 14)^2 = 7$

5) $x^2 + 4x + y^2 = -30y - 222$

6) $y^2 - 32x = 28y - 443 - x^2$

Use the information provided to write the equation of each circle.

7) Center: $(10, 1)$
Radius: $4\sqrt{2}$

8) Center: $(-6, -2)$
Radius: 9

9) Ends of a diameter: $(7, 7)$ and $(1, 11)$

10) Ends of a diameter: $(11, 10)$ and $(-3, 12)$

11) Three points on the circle:
 $(4, -8)$, $(9, -3)$, and $(4, 2)$

12) Three points on the circle:
 $(-6, 6)$, $(6, 16)$, and $(6, -6)$

Answers to Assignment : Equation of Circles

1) Center: $(0, 0)$
Radius: 13

2) Center: $(0, 0)$
Radius: 3

3) Center: $(3, -8)$
Radius: $4\sqrt{7}$

4) Center: $(2, 14)$
Radius: $\sqrt{7}$

5) Center: $(-2, -15)$
Radius: $\sqrt{7}$

6) Center: $(16, 14)$
Radius: 3

7) $(x - 10)^2 + (y - 1)^2 = 32$

8) $(x + 6)^2 + (y + 2)^2 = 81$

9) $(x - 4)^2 + (y - 9)^2 = 13$

10) $(x - 4)^2 + (y - 11)^2 = 50$

11) $(x - 4)^2 + (y + 3)^2 = 25$

12) $(x - 5)^2 + (y - 5)^2 = 122$

