

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

- 1) Center: $(-5, -11)$
Radius: 4

$$(x + 5)^2 + (y + 11)^2 = 16$$

- 2) Center: $(3, 13)$
Radius: 3

$$(x - 3)^2 + (y - 13)^2 = 9$$

- 3) Center: $(-11, 17)$
Point on Circle: $(-10, 17)$

$$(x + 11)^2 + (y - 17)^2 = 1$$

- 4) Center: $(11, -14)$
Point on Circle: $(13, -18)$

$$(x - 11)^2 + (y + 14)^2 = 20$$

- 5) Center: $(16, -10)$
Point on Circle: $(17, -8)$

$$(x - 16)^2 + (y + 10)^2 = 5$$

- 6) Center: $(-4, -2)$
Point on Circle: $(-9, 12)$

$$(x + 4)^2 + (y + 2)^2 = 221$$

7) $x^2 + y^2 - 22x + 32y + 373 = 0$

$$(x - 11)^2 + (y + 16)^2 = 4$$

8) $x^2 + y^2 - 8x - 26y + 169 = 0$

$$(x - 4)^2 + (y - 13)^2 = 16$$

9) $x^2 + y^2 + 28x - 8y + 204 = 0$

$$(x + 14)^2 + (y - 4)^2 = 8$$

10) $x^2 + y^2 - 28x + 8y + 196 = 0$

$$(x - 14)^2 + (y + 4)^2 = 16$$

11) $x^2 + y^2 + 32x + 4y + 259 = 0$

$$(x + 16)^2 + (y + 2)^2 = 1$$

12) $x^2 + y^2 + 10x - 8y - 23 = 0$

$$(x + 5)^2 + (y - 4)^2 = 64$$

13) $x^2 + y^2 - 6x + 32y + 264 = 0$

$$(x - 3)^2 + (y + 16)^2 = 1$$

14) $x^2 + y^2 - 4x - 32y + 251 = 0$

$$(x - 2)^2 + (y - 16)^2 = 9$$