Name_____

Writing Equations of Circles

Date_____ Period____

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

1) $8x + x^2 - 2y = 64 - y^2$

$(x+4)^2 + (y-1)^2 = 81$

2) $137 + 6y = -y^2 - x^2 - 24x$

$(x+12)^2 + (y+3)^2 = 16$

3) $x^2 + y^2 + 14x - 12y + 4 = 0$

$(x+7)^2 + (y-6)^2 = 81$

4) $y^2 + 2x + x^2 = 24y - 120$

$(x+1)^2 + (y-12)^2 = 25$

5) $x^2 + 2x + y^2 = 55 + 10y$

$(x+1)^2 + (y-5)^2 = 81$

6) $8x + 32y + y^2 = -263 - x^2$

$(x+4)^2 + (y+16)^2 = 9$

7) Center: (–11, –8)
Radius: 4

$(x+11)^2 + (y+8)^2 = 16$

8) Center: (–6, –15)
Radius: $\sqrt{5}$

$(x+6)^2 + (y+15)^2 = 5$

9)

center (3, 4) thru (7, 9)

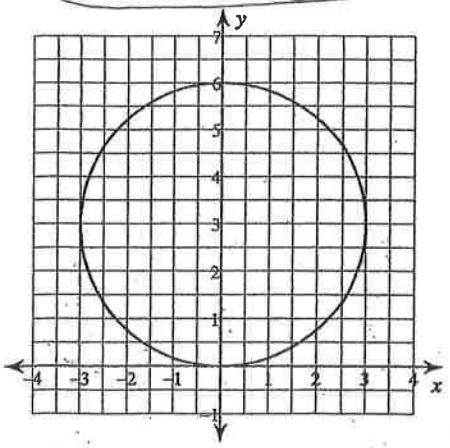
$(x-3)^2 + (y-4)^2 = 41$

10)

Center (2, 3) tangent to y-axis

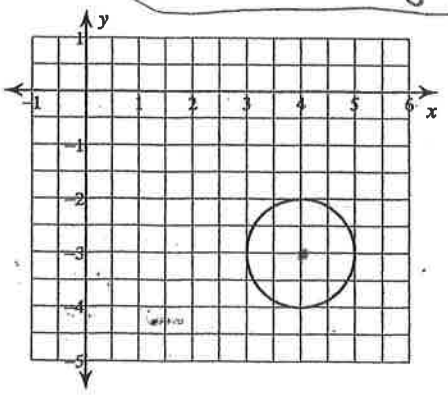
$(x-2)^2 + (y-3)^2 = 4$

11)



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

12)



$(x-4)^2 + (y+3)^2 = 1$

13) Ends of a diameter: (–17, –9) and (–19, –9)

$(x+18)^2 + (y+9)^2 = 1$

14) Ends of a diameter: (–3, 11) and (3, –13)

$x^2 + (y+1)^2 = 153$