Writing Circle and Ellipse Equations



 \* For Circle a = b

1. x = 6 + 5cosT 2. x = -1 + 4cosT

 y = -3 + 2sinT y = 4sinT

Write parametric equations.

3. $\left(\frac{x-2}{5}\right)^{2}+\left(\frac{y-4}{2}\right)^{2}=1$ 4. $\left(\frac{x-6}{3}\right)^{2}+\left(\frac{y+1}{3}\right)^{2}=1$

Circle equation when a=b and Ellipse equation *a* is major radius and *b* is minor radius

 $\frac{(x-h)^{2}}{a^{2}}+\frac{(y-k)^{2}}{b^{2}}=1$ $\frac{(x-h)^{2}}{b^{2}}+\frac{(y-k)^{2}}{a^{2}}=1$

Write a Cartesian equation that satisfies each set of conditions.

5. circle with center (8, -3) radius = 6

6. circle with center (-5, 2), passes through (-9, 6)

7. circle whose endpoints of a diameter are (-4, 5) and (6, -3)



8.

9. ellipse whose endpoints of major axis are (-8, 4) and (4, 4), foci at (-3, 4) and (-1, 4)