Geometry G7A-1   Name: _____
Equations of circles

Check for Understanding:

1) What is the center and radius of these circles:

a) $x^2 + y^2 = 64$

      center: _____ radius:_____

b) $(x+1)^2 + (y+2)^2 = 36$

      center: _____ radius:_____

c) $(x-6)^2 + (y-8)^2 = 4$

      center: _____ radius:_____

d) $(x-12)^2 + y^2 = 9$

      center: _____ radius:_____

2) Write the equation of each circle described:

a) C:(-4, 5) and radius=5   _____

b) C:(2, -9) and radius=14   _____

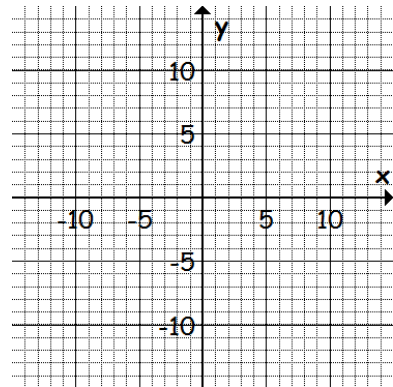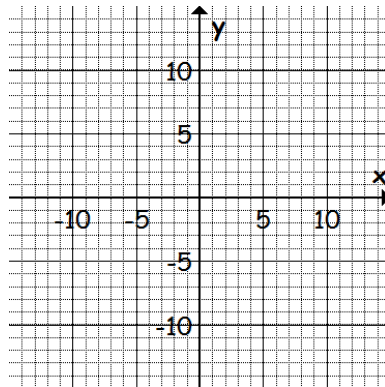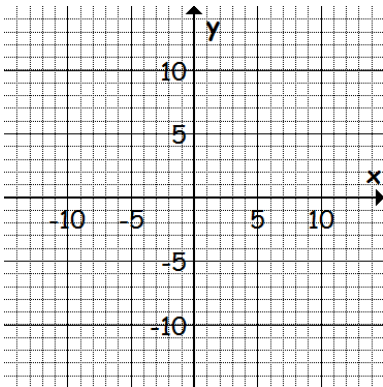c) C:(0, 3) and radius=4   _____

Practice C-Level:

3)   Sketch the graph of each circle:

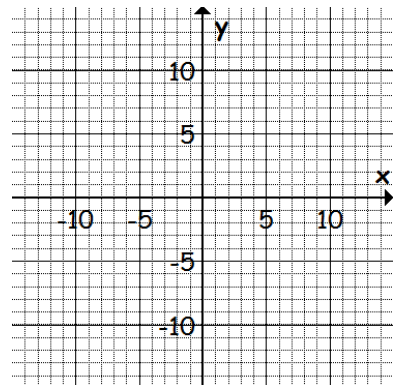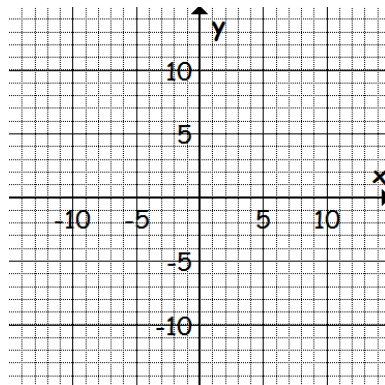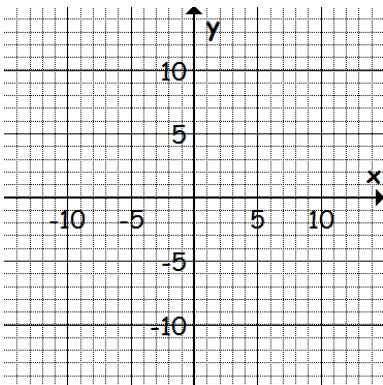a) $(x-2)^2 + (y+1)^2 = 25$ b) $(x+1)^2 + (y-2)^2 = 25$ c) $(x-3)^2 + (y-4)^2 = 49$

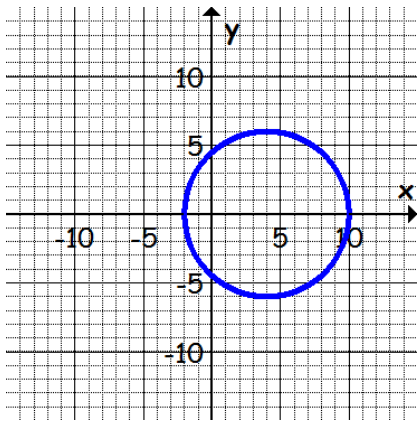d) $x^2 + (y+3)^2 = 16$ e) $(x+4)^2 + y^2 = 9$ f) $x^2 + y^2 = 81$
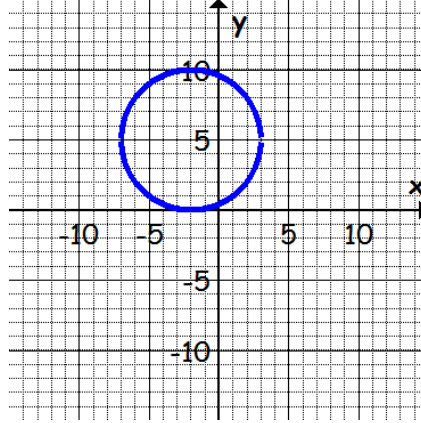
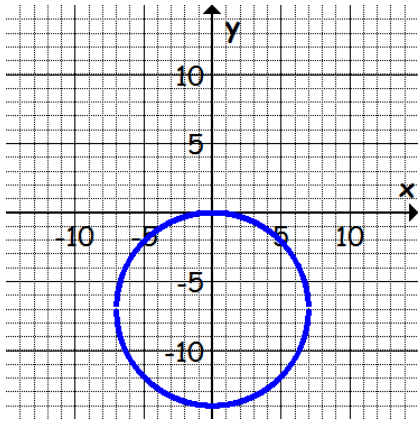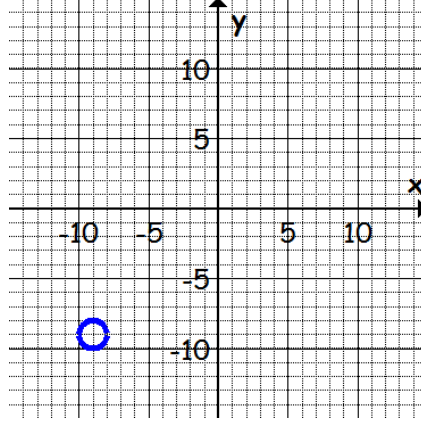4) Write the equation of each graphed circle:

a)

b)

c)

d)

Looking Ahead (B-Level):
5) Factor these quadratic equations:

a) $y = x^2 - 20x + 100$

b) $y = x^2 + 10x + 25$

6) Rewrite this equation so that you can graph the circle.

$$x^2 - 20x + 100 + y^2 + 10y + 25 = 16$$