Graph It!

1. Graph the following circles on one set of coordinate axes:

$x^2 + (y - 6)^2 = 16$
$(x - 9)^2 + (y - 6)^2 = 16$
$(x + 9)^2 + (y - 6)^2 = 16$
$(x + 4.5)^2 + (y - .5)^2 = 16$
$(x - 4.5)^2 + (y - .5)^2 = 16$

2. Graph the following on one set of coordinate axes:

$x^2 + (y - 7)^2 = 64$: $7 \leq y$
$(x + 6)^2 + (y - 7)^2 = 4$: $7 \leq y$
$(x + 2)^2 + (y - 7)^2 = 4$: $7 \leq y$
$(x - 6)^2 + (y - 7)^2 = 4$: $7 \leq y$
$(x - 2)^2 + (y - 7)^2 = 4$: $7 \leq y$

the point (0, -9)

$y = -2x - 9$: $-8 \leq x \leq 0$
$y = -4x - 9$: $-4 \leq x \leq 0$
$x = 0$: $-9 \leq y \leq 7$
$y = 4x - 9$: $0 \leq x \leq 4$
$y = 2x - 9$: $0 \leq x \leq 8$

3. Graph the following on one set of coordinate axes:

$$\frac{x^2}{16} + \frac{(y-12)^2}{4} = 1$$

$y = .5x^2 + 4$: $-4 \leq x \leq 4$
$x = 3$: $-11 \leq y \leq 8.5$
$x = -3$: $-11 \leq y \leq 8.5$
$x^2 + (y + 11)^2 = 9$: $y \leq -11$
$y = 2x + 8$: $3 \leq x \leq 6$
$y = 4x + 8$: $2 \leq x \leq 3$
$y = -2x + 8$: $-6 \leq x \leq -3$
$y = -4x + 8$: $-3 \leq x \leq -2$