

# [graphing]

## 1. Linear Functions

- $y = 3x - 1$
- $5x - 4y = 20$
- $3y = -2x + 9$

## 2. Quadratic Functions

- $y = x^2 - 4$
- $y = -2x^2$
- $y = 3(x + 1)^2$
- $y = \frac{1}{2}(x + 5)^2 - 4$
- $y = x^2 - 8x + 7$
- $y = 2x^2 + 4x - 1$
- $y = -3x^2 + 12x + 5$
- $y = 3x^2 - 9x - 7$
- $y = \frac{1}{2}x^2 + 3x - 12$
- $y = -\frac{2}{3}x^2 + \frac{1}{3}x - 1$

## 3. Circles

- $x^2 + y^2 + 25 = 0$
- $2x^2 + 2y^2 = 32$
- $(x - 2)^2 + (y + 5)^2 = 4$
- $x^2 + y^2 - 4x + 6y - 3 = 0$

## 4. For each relation below

- Identify the graph
- State important particulars
- Graph
- Is the relation a function?
- State the domain and range.

i.  $y = 2(x + 1)^2 - 7$

ii.  $y = -\frac{2}{3}x + 5$

iii.  $x^2 + y^2 = 9$

iv.  $(x - 3)^2 + (y + 1)^2 = 25$

v.  $y = -3x^2 + 12x - 5$