

# Graphing the Conics

by Fred Pence in *The Virginia Mathematics Teacher* Winter 1985

Graph the following on the grid at the right:  
(Note the range for each expression)

$$y = x + 4, \quad 11 \leq y \leq 12$$

$$y = -x + 16, \quad 11 \leq y \leq 12$$

$$x = 16/3, \quad -10 \leq y \leq 12$$

$$x = 17/3, \quad -10 \leq y \leq 12$$

$$x = 6, \quad -10 \leq y \leq 12$$

$$x = 19/3, \quad -10 \leq y \leq 12$$

$$x = 20/3, \quad -10 \leq y \leq 12$$

$$x = 5, \quad 2\frac{1}{2} \leq y \leq 11$$

$$x = 7, \quad 2\frac{1}{2} \leq y \leq 11$$

$$(x-6)^2 + (y+8)^2 = 16, \quad y \leq -8$$

$$\frac{(x-6)^2}{\frac{9}{4}} + \frac{(y+6)^2}{9} \leq 1$$

$$y = -\frac{1}{2}(x-6)^2 + 3, \quad y \geq -5$$

$$\frac{(x-6)^2}{9} - \frac{\left(y+6\frac{1}{2}\right)^2}{\frac{81}{28}} = 1, \quad -8 \leq y \leq -5$$

$$\frac{(x-6)^2}{4} + \frac{(y-12)^2}{1} = 1, \quad 12 \leq y \leq 13$$

