

Simplify the following:

$$(4x + 5x^2 - 7) + (6x^3 - 3x^2 + 7x + 9)$$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Simplify the following:

$$(5x^2 + 7x - 8) - (3x^2 + 2x - 4)$$

Simplify the following:

$$(3x + 2)(5x + 3)$$

Simplify the following:

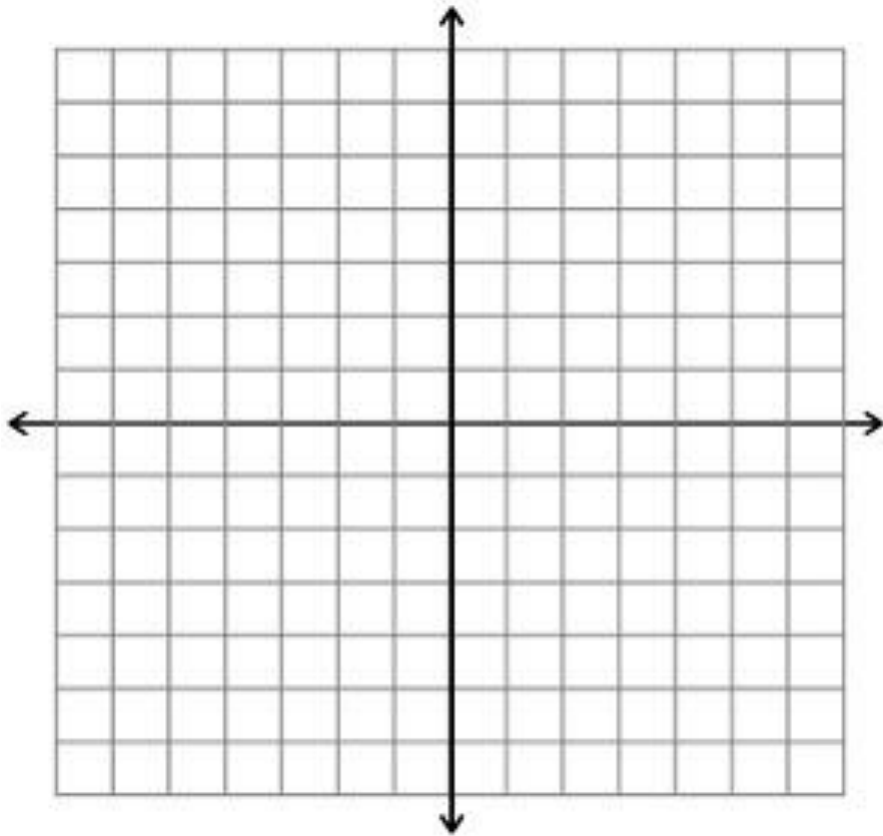
$$(7x + 4)(2x - 3)$$

Simplify the following:

$$(4x + 3)^2$$

Find the following characteristics and graph:

$$y = -2x^2 - 16x - 35$$



Domain:

Range:

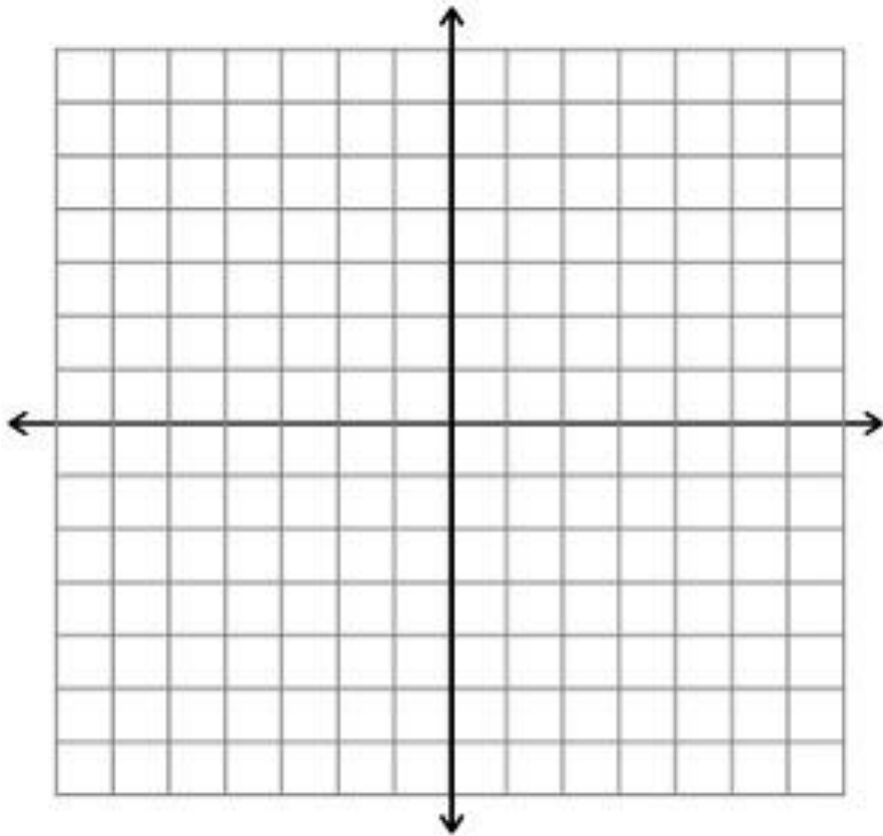
Axis of Symmetry:

Vertex:

y-intercept:

Find the following characteristics and graph:

$$y = (x - 4)(x + 2)$$



Domain:

Range:

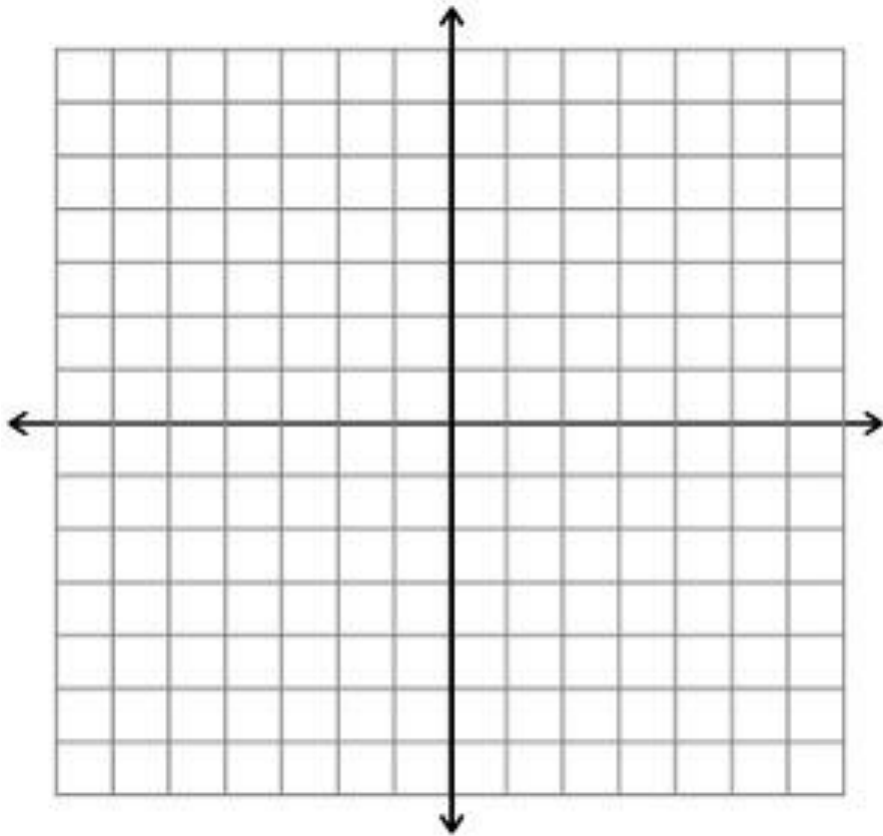
Axis of Symmetry:

Vertex:

y-intercept:

Find the following characteristics and graph:

$$y = -2(x - 3)^2 + 4$$



Domain:

Range:

Axis of Symmetry:

Vertex:

y-intercept:



If you did not previously,  
convert the following to  
standard form:

$$y = (x - 4)(x + 6)$$

$$y = -2(x - 3)^2 + 4$$