

Graphing Quadratics from Standard Form HW

1. $f(x) = x^2 + 2x + 1$

axis of symmetry _____

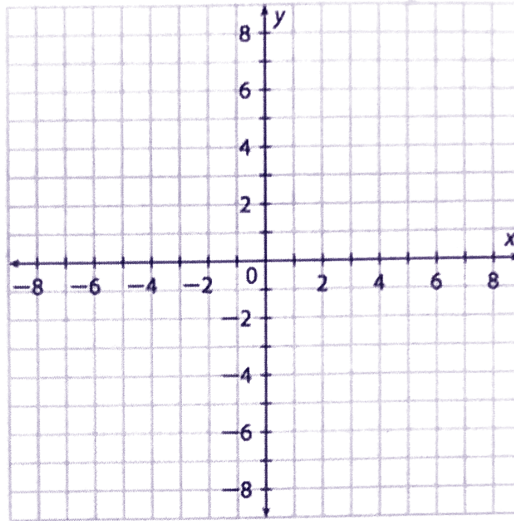
vertex _____

y-intercept _____

2 extra points _____

domain _____

range _____



2. $f(x) = 3x^2 - 6x + 4$

axis of symmetry _____

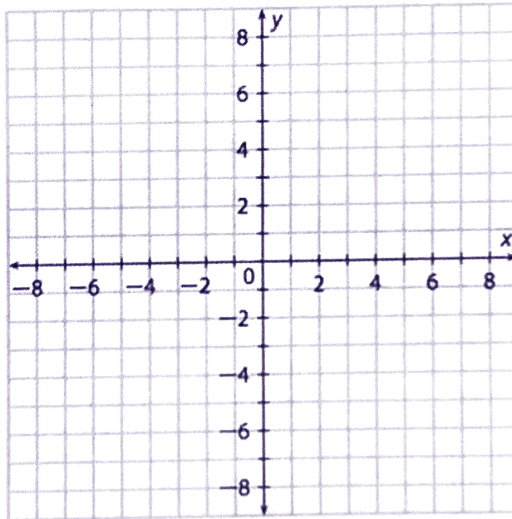
vertex _____

y-intercept _____

2 extra points _____

domain _____

range _____



3. $f(x) = -2x^2 + 4x + 3$

axis of symmetry _____

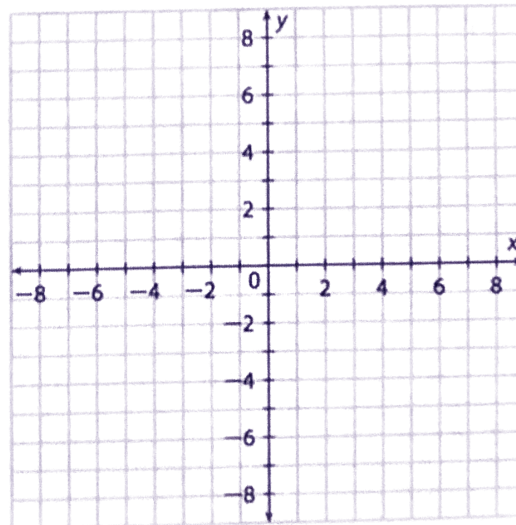
vertex _____

y-intercept _____

2 extra points _____

domain _____

range _____



4. $f(x) = x^2 - 8x + 12$

axis of symmetry _____

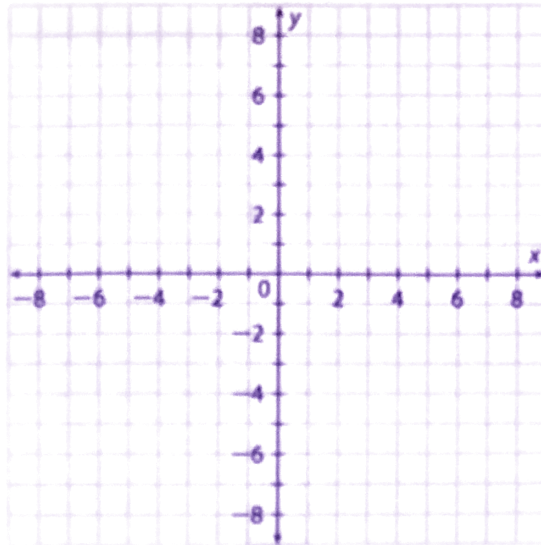
vertex _____

y-intercept _____

2 extra points _____

domain _____

range _____

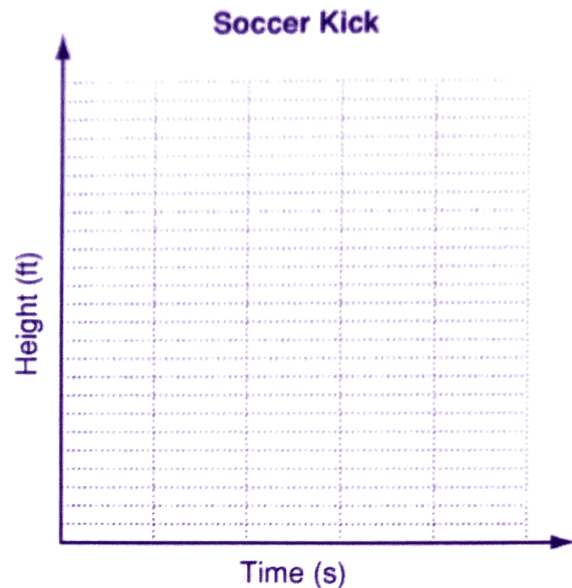


5. The height in feet of a soccer ball that is kicked can be modeled by the function $f(x) = -8x^2 + 24x$, where x is the time in seconds after it is kicked. Graph this function. Find the soccer ball's maximum height and the time it takes the ball to reach this height. Then find how long the soccer ball is in the air.

maximum height: _____

time to reach maximum height: _____

time in the air: _____



6. Change each quadratic function into standard form.

a. $f(x) = (x - 3)(x + 2)$

b. $f(x) = -2(x + 4)^2 - 7$

c. $f(x) = 3(x - 6)(x + 2)$

d. $f(x) = 3(x - 2)^2 + 5$