

Describe the transformation from the function $f(x) = x^2$.

$$g(x) = \frac{1}{2}(x - 3)^2 + 4$$

Write the equation of the function in intercept form given the following conditions.

X-intercepts at $(-6, 0)$ and $(2, 0)$ and has a minimum value of $(-2, 8)$

Graph the following equation:

$$y = 2(x + 1)^2 - 18$$

Describe the transformation from the function $f(x) = |x|$

$$g(x) = 2|x + 3| - 4$$

Write the equation of the function in standard form given the following conditions.

X-intercepts at $(-6, 0)$ and $(2, 0)$ and goes through the point $(0, -24)$

Graph the function:

$$h(x) = -2x^2 + 4x + 16$$

Write the equation of function $f(x) = x^2$ under the following conditions.

Shifted to the right 4

Shifted up 5

Vertical Compression by a factor of $\frac{1}{2}$

Write the equation of the function in vertex form given the following conditions.

X-intercepts $(-6, 0)$ and $(2, 0)$ and has a maximum value of $(-2, 32)$

Graph the following function:

$$f(x) = \frac{1}{2}(x + 6)(x - 2)$$

Write the equation of function $f(x) = |x|$ under the following conditions.

Reflection over the x-axis

Shifted to the left 5

Shifted down 4

Vertical Stretch by a factor 2