

Graphs from a Vertex Form Equation

Given $f(x) = -3(x + 5)^2 - 1$, determine

- the vertex
- the axis of symmetry
- the direction of opening
- the y-intercept
- the step pattern
- the y-intercepts
- and the domain and range.

Use this information to draw a rough sketch of the curve.

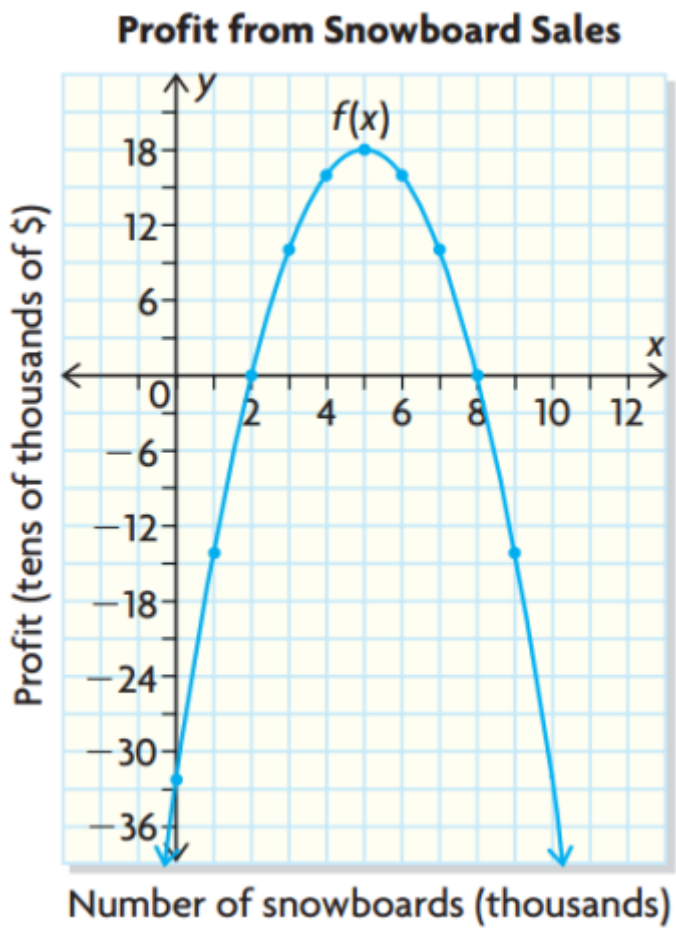
Graphs from a Standard Form Equation

Given $f(x) = 2(x + 1)(x - 3)$, determine

- the x-intercepts
- the vertex
- the axis of symmetry
- the direction of opening
- the y-intercept
- and the step pattern

Use this information to draw a rough sketch of the curve.

Equations from Graphs



Determine an expression to model the situation.

a. In Vertex Form

b. In Factored Form

Equations from Information

A quadratic function has a vertex at $(5, 18)$ and zeros at $x = 2$, and $x = 8$.

1. Determine an equation in

a. Vertex Form

b. Standard Form

c. Factored Form

2. Use your equations to draw a rough sketch of the curve.