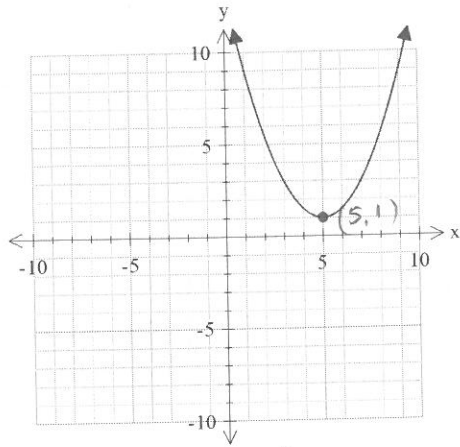
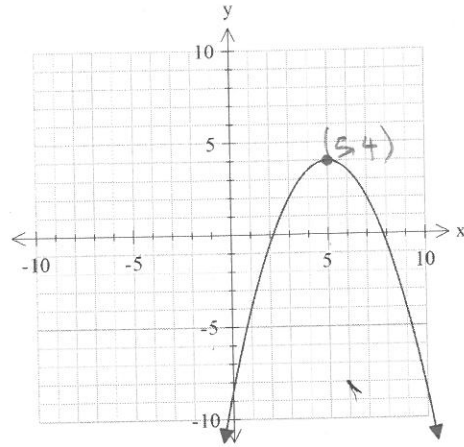


Example 1: Analyzing Quadratic Functions

State the vertex and the range for the following functions.



Vertex: $(5, 1)$
 Domain: $(-\infty, \infty)$
 Range: $[1, \infty)$



Vertex: $(5, 4)$
 Domain: $(-\infty, \infty)$
 Range: $(-\infty, 4]$

In addition to stating the vertex and the domain and range of a quadratic function, many other characteristics can be described such as end behaviour and x and y intercepts.

The quadratic function shown below can be described as having the following characteristics:

Shape: Parabola opening upward.

Sign of leading coefficient: Positive

End Behaviour: Q II to Q I.

y -intercept: 0.

x -intercepts: -4 and 0 .

Vertex: $(-2, -4)$

Minimum Value: -4

Maximum Value: None

Domain: $x \in R$

Range: $[-4, \infty)$

