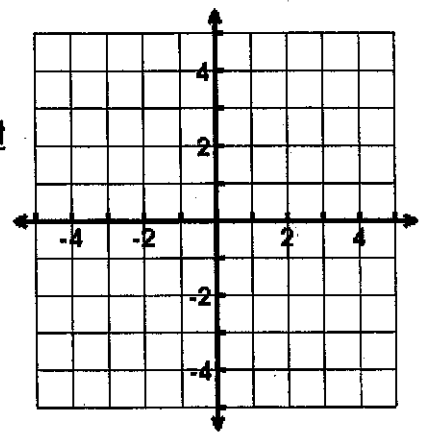


Name: _____ Date: _____

End Behavior:

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$ can be read as "As x **approaches** infinity, y approaches [blank]." x approaches infinity as we move **right** along the x -axis in the **positive** direction.

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$ can be read as "As x approaches negative **infinity**, y approaches blank." x approaches **negative** infinity as we move **left** along the x -axis in the negative direction.



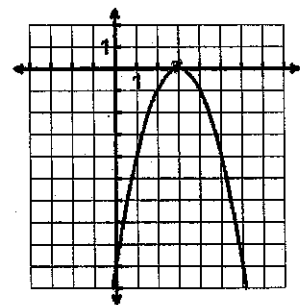
To fill in the blank, describe y as approaching positive infinity or negative infinity. Y approaches positive infinity when the parabola points up and negative infinity when the parabola points down.

End Behavior: $x \rightarrow \infty, y \rightarrow \underline{-\infty}$ & $x \rightarrow -\infty, y \rightarrow \underline{-\infty}$

Bonus

Vertex: (3, 0) Axis of Symmetry: $x = 3$

Zero(s): $x = 3$ Y Intercept: (0, -9)

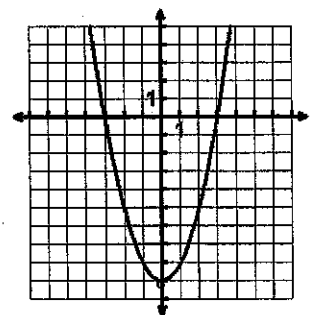


End Behavior: $x \rightarrow \infty, y \rightarrow \underline{\infty}$ & $x \rightarrow -\infty, y \rightarrow \underline{\infty}$

Bonus

Vertex: (0, -9) Axis of Symmetry: $x = 0$

X-intercept(s): $x = -3, x = 3$ Y Intercept: (0, -9)



End Behavior: $x \rightarrow \infty, y \rightarrow \underline{\infty}$ & $x \rightarrow -\infty, y \rightarrow \underline{\infty}$

Bonus

Vertex: (2, 9) Axis of Symmetry: $x = 2$

Solution(s): $x = -1, x = 5$ Y Intercept: $x = 5$

