

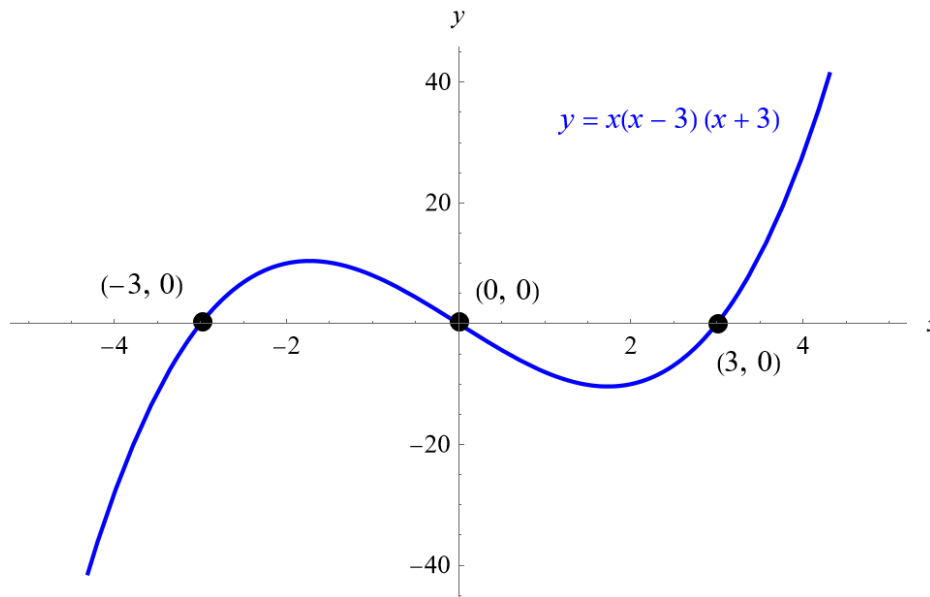
Exercise 52

For the following exercises, graph the polynomial functions using a calculator. Based on the graph, determine the intercepts and the end behavior.

$$f(x) = x(x - 3)(x + 3)$$

Solution

The function is graphed below, and the intercepts are labelled.



The end behavior is $f(x) \rightarrow -\infty$ as $x \rightarrow -\infty$ and $f(x) \rightarrow \infty$ as $x \rightarrow \infty$.