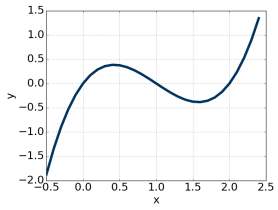
Objective 2 - Graph Polynomials

Convert between a polynomial function and its graph.

Link to section in online textbook.

First, watch this video to learn what the different forms of a polynomial can tell you about its shape. Now practice converting between the graph and the corresponding equation.

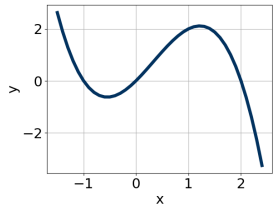
Question 1 *Write an equation of the function graphed below.*



List zeros from smallest to largest. Use ?? *and* ?? *as exponents. The leading coefficient is either* 1 *or* -1.

$f(x) = \boxed{1}(x - \boxed{0})^{\boxed{??}}(x - \boxed{1})^{\boxed{??}}(x - \boxed{2})^{\boxed{??}}$

Question 2 *Write an equation of the function graphed below.*

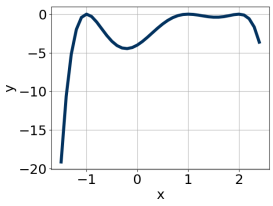


List zeros from smallest to largest. Use ?? *and* ?? *as exponents. The leading coefficient is either* 1 *or* -1.

$f(x) = \boxed{-1}(x - \boxed{-1})^{\boxed{??}}(x - \boxed{0})^{\boxed{??}}(x - \boxed{2})^{\boxed{??}}$

Learning outcomes:
Author(s): Darryl Chamberlain Jr.

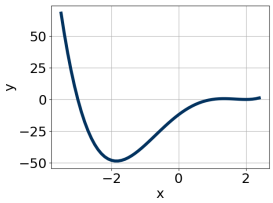
Question 3 *Write an equation of the function graphed below.*



List zeros from smallest to largest. Use **??** *and* **??** *as exponents. The leading coefficient is either* 1 *or* −1*.*

$f(x) = \boxed{-1}(x - \boxed{-1})^{\boxed{??}}(x - \boxed{1})^{\boxed{??}}(x - \boxed{2})^{\boxed{??}}$

Question 4 *Write an equation of the function graphed below.*



List zeros from smallest to largest. Use **??** *and* **??** *as exponents. The leading coefficient is either* 1 *or* −1*.*

$f(x) = \boxed{1}(x - \boxed{-3})^{\boxed{??}}(x - \boxed{1})^{\boxed{??}}(x - \boxed{2})^{\boxed{??}}$