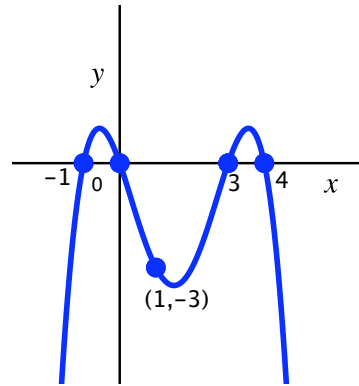


1. (3 pts.) Find a possible formula for the function  $f(x)$  shown to the right given that  $f(x)$  is a **polynomial**.



2. Consider the function  $g(x) = \frac{x^2 - 5x + 4}{x^3 - 4x}$ .

- (a) (1 pt.) What is the domain of  $g(x)$ ?
- (b) (3 pts.) Write **equations** for the horizontal and vertical asymptotes of  $g(x)$  (if any).
- (c) (1 pt.) Find the zero(s) of  $g(x)$ .
3. (2 pts.) What **simple** interest rate is needed to have \$100 double after just 4 years?