





$f(x) = x^2 - 3x + 2$ . The roots of  $f(x)$  are  $x=1$  and  $x=2$ . The function  $f(x)$  is positive for  $x < 1$  and  $x > 2$ , and negative for  $1 < x < 2$ .

The function  $f(x)$  has a local minimum at  $x = 1.5$ . The function  $f(x)$  is concave down for all  $x$ . The function  $f(x)$  is increasing for  $x > 1.5$  and decreasing for  $x < 1.5$ .

