

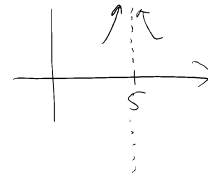
• Graph  $f(x) = \frac{x^2 - x - 6}{x^2 - 10x + 25} = \frac{(x-3)(x+2)}{(x-5)^2}$

No holes.

Zeros:  $x=3$  or  $x=-2$

V.A.  $x=5$

$f(5.1)$  is  $\frac{(+)(+)}{+}$   
 $f(4.9)$  is  $\frac{(+)(+)}{+}$



H.A.  $y = \frac{1}{1}$   $y=1$

$\frac{x^2 - x - 6}{x^2 - 10x + 25} = 1$

$x^2 - x - 6 = x^2 - 10x + 25$

$-x - 6 = -10x + 25$

$9x = 31$

$x = \frac{31}{9}$  ← Only place where graph goes through H.A.

y-int  $y = \frac{0-0-6}{0-0+25} = \frac{-6}{25}$

