

# Two-way functions

	<b>y-axis is an asymptote</b>			<b>Passes through origin</b>
<b><math>x = 1</math> is a root</b>		$y =  x - 1 $	$y = -3x + 3$	
<b>Has exactly two roots</b>		$y = x(x - 2)$		
	$y = \frac{1}{x}$ for $x \neq 0$	$y = \frac{1}{(x - 1)^2}$ for $x \neq 1$	$y = \frac{3}{x + 1}$ for $x \neq -1$	
<b><math>y \rightarrow \infty</math> as <math>x \rightarrow \infty</math></b>			$y = 2 + (x - 1)^4$	