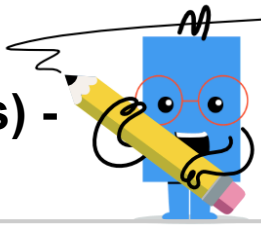
Name

Function Root Behaviour (Polynomials) - Function and Behaviour to Intercept



1 At which intercept does the function show this root behaviour?

$$f(x) = (x+1)^2(x-1)$$

Where does it touches the x-axis without crossing?

A	B
$x = -1$	$x = 1$

2 At which intercept does the function show this root behaviour?

$$f(x) = (x+3)^4(x-1)^2$$

Where does it touches the x-axis without crossing?

A	B
$x = 1$	$x = -3$

3 At which intercept does the function show this root behaviour?

$$f(x) = x^4(x-1)^3$$

Where does it crosses the x-axis and flattens?

A	B
$x = 0$	$x = 1$

4 At which intercept does the function show this root behaviour?

$$f(x) = (x+3)^4(x+1)^3$$

Where does it touches the x-axis without crossing and flattens?

A	B
$x = -3$	$x = -1$

5 At which intercept does the function show this root behaviour?

$$f(x) = x^3(x-2)$$

Where does it crosses the x-axis?

A	B
$x = 0$	$x = 2$

6 At which intercept does the function show this root behaviour?

$$f(x) = (x-1)^3(x-3)^2$$

Where does it touches the x-axis without crossing?

A	B
$x = 3$	$x = 1$

7 At which intercept does the function show this root behaviour?

$$f(x) = x(x-1)^4$$

Where does it touches the x-axis without crossing and flattens?

A	B
$x = 0$	$x = 1$

8 At which intercept does the function show this root behaviour?

$$f(x) = (x+3)^3(x-1)^4$$

Where does it touches the x-axis without crossing and flattens?

A	B
$x = -3$	$x = 1$