

Name:

Section 3.1 – Polynomial Basics

1. Discuss the end behaviour of the Polynomials given below considering their leading terms and degree
Draw a rough sketch of the general behaviour

$f(x) = 2x - 3x^2$	$f(x) = -2x + x^2 + 3x^3$
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2. Find the roots (x – *intercepts*) and their multiplicities

$x^3 - 4x^2 + 4x$	$x^4 - 9x^2$
$5x(x^2 - 7x + 6)$	$x^2(x^2 - 1) - 3x(x^2 - 1) - 4(x^2 - 1)$