

## Properties of Polynomial Functions

### Terminology

The degree of a polynomial is \_\_\_\_\_

Example	Degree	Classification
$y = 5x + 3$		
$y = 4x^2 + 3x + 1$		
$y = -4x^3 - 3$		
$y = 5x^4 - 3x^3 + 2x$		
$y = -7x^5 - 4x$		

The leading coefficient is \_\_\_\_\_

\_\_\_\_\_

A function is increasing if \_\_\_\_\_

\_\_\_\_\_

A function is decreasing if \_\_\_\_\_

\_\_\_\_\_

A turning point occurs when \_\_\_\_\_

\_\_\_\_\_

The "end behaviours" of a function means:

\_\_\_\_\_

As  $x$  approaches negative infinity,

\_\_\_\_\_

Using mathematical notation: \_\_\_\_\_

As  $x$  approaches positive infinity,

\_\_\_\_\_

Using mathematical notation: \_\_\_\_\_

The zero of a function is \_\_\_\_\_

\_\_\_\_\_