

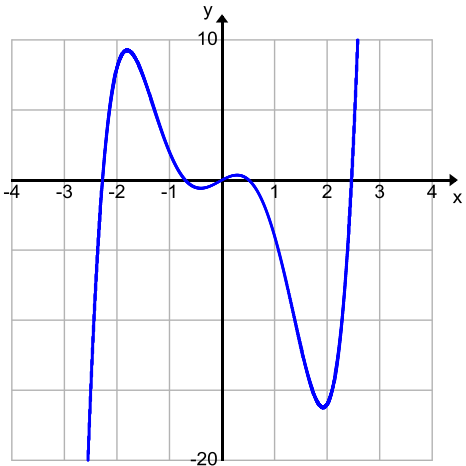
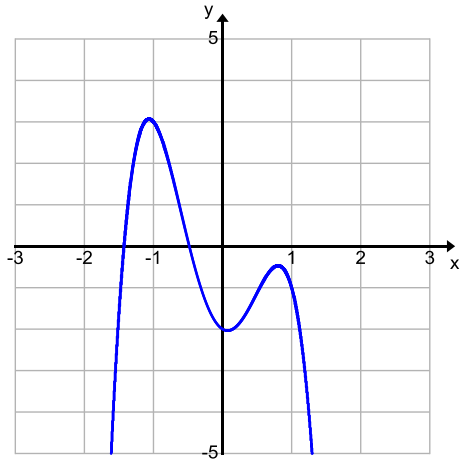
## MHF 4U – Polynomial Functions Quiz 2

1. The fourth differences of a polynomial function are constant and are equal to 144. **(2)**

a) What is the degree of the function?

b) Determine the value of the leading coefficient for the function.

2. Each graph represents a polynomial function of degree 3, 4, 5, or 6. Complete the table below for each function. **(5)**

	
Sign of Leading Coefficient:	Sign of Leading Coefficient:
End Behaviour:	End Behaviour:
Least Possible Degree:	Least Possible Degree:

3. For the polynomial function  $h(x) = 27x^3 - 81x$ , use the degree and the sign of the leading coefficient to

i) describe the end behaviour of the polynomial function **(1)**

ii) state which finite differences will be constant **(1)**

iii) determine the value of the constant finite differences **(1)**