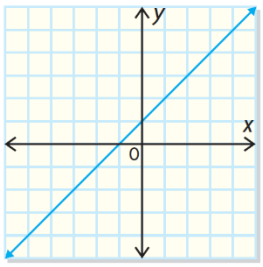
MFM 2P1 Name: _____

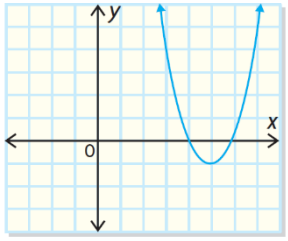
Properties of Quadratics

1. Which graphs appear to represent a quadratic relation?

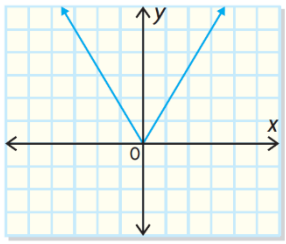
a)



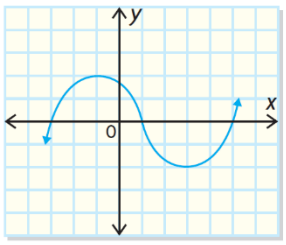
c)



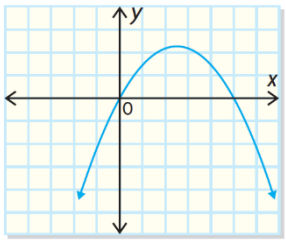
e)



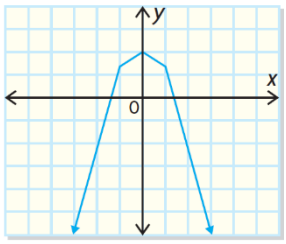
b)



d)



f)



2. State which of the following relations are quadratic.

a) $y = 5x - 2$ b) $y = x^2 - 6x + 4$ c) $y = x(x - 4)$ d) $y = 3x^3 + x^2 + x$

3. Calculate the finite differences for each set of data and determine whether the relation is linear, quadratic or neither.

a)

x	10	20	30	40
y	21	31	41	51

b)

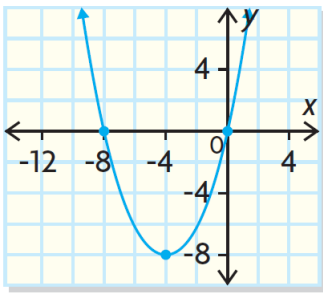
x	y
-2	-4
-1	-1
0	0
1	-1
2	-4

c)

x	y
-2	0
0	0
2	8
4	24
6	48

4. For each graph, state the y-intercept, the zeros, the coordinates of the vertex, the equation of the axis of symmetry and the max/min value.

a)



b)