1. Use first and second differences to determine if the relation is quadratic.
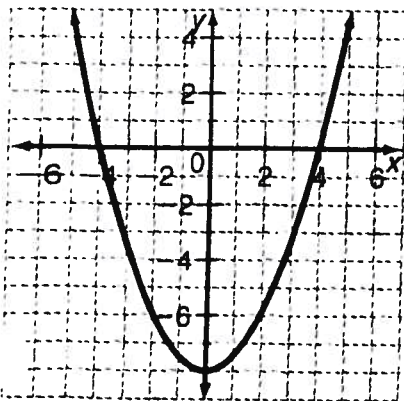
x	y	First Differences	Second Differences
−3	20		
−2	13		
−1	8		
0	5		
1	4		
2	5		
3	8		

2. Identify the information indicated.

Coordinates of vertex: (____, ____)

Equation of axis of symmetry: _____

x-intercepts: _____

y-intercept: _____

Min/Max : _____

3. Determine if the relation is linear, quadratic, or neither. Provide an explanation for your answer.

x	y	First Differences	Second Differences
−3	12		
−2	7		
−1	4		
0	3		
1	4		
2	7		
3	12		

The relation is _____ because _____.