3.

Δx	x	y	first difference	second difference
	-3	-24		
	-2	-10		
	-1	0		
	0	6		
	1	8		
	2	6		
	3	0		
	4	-10		

4.

Δx	x	y	first difference	second difference
	-3	-62		
	-2	-34		
	-1	-14		
	0	-2		
	1	2		
	2	-2		
	3	-14		
	4	-34		

5.

Δx	x	y	first difference	second difference
	-4	20		
	-3	5		
	-2	0		
	-1	5		
	0	20		
	1	45		
	2	80		
	3	125		

6.

Δ x	x	y	first difference	second difference
	-4	19		
	-3	15		
	-2	11		
	-1	7		
	0	3		
	1	-1		
	2	-5		
	3	-9		

7. A football is kicked and the following data is collected representing the height of the ball in meters over time in seconds. Write a function that models the flight of the ball. What is the domain and range of this function in this situation?

Δ x	Time sec	Distance m	first difference	second difference
	1	20		
	2	30		
	3	30		
	4	20		
	5	0		

8. Create two tables of values-one linear and one quadratic. Explain the process for determining the type of function represented. Be sure to discuss similarities and differences in the process.