

Write the equation of each
of the following functions:

$$y = -3(x-7)^2 + 18$$

Quadratic

X	Y
6	15
7	18
8	15
9	6
10	-9
11	-30

$$y = a(x-h)^2 + k$$

$$y = a(x-7)^2 + 18$$

$$6 = a(9-7)^2 + 18$$

$$6 = 4a + 18$$

$$-12 = 4a \quad a = -3$$

Linear

$$y = 2x - 6$$

X	Y
13	20
15	24
17	28
19	32
21	36
23	40

$$m = \frac{\Delta y}{\Delta x} = \frac{4}{2} = 2$$

$$y = 2x + b$$

$$36 = 2(21) + b$$

$$36 = 42 + b$$

$$b = -6$$

$$\begin{array}{l} 0 \quad 320 \\ 1 \quad 160 \\ 2 \quad 80 \end{array}$$

mult. by .5

Exponential

X	Y
3	40
4	20
5	10
6	5
7	2.5
8	1.25

$$y = a \cdot b^x$$

$$y = 320(.5)^x$$

Fences and Functions

Unit 5 Test tomorrow