

1. Solve for x:

a. $500 = \frac{4(x-5)}{3} - 100$

b. $30000 = 10000(1.06)^x$

c. $16 = 3x^{\frac{2}{3}}$

2. Without use of a calculator, sketch graphs showing the qualitative aspects of the curves expressing each of the following relationships. Label any intercepts.

a. $y = 10e^{0.30x}$

b. $y = -3x + 30$

c. $y = 2x^{0.8}$

d. $y = \frac{2}{x} + 4$

e. $y = 3x^{1.5}$

3. Determine what kind of relationship each data table might represent – linear, exponential, power, or modified inverse. In each case, express the relationship with an equation.

a.

x	y
0	3
1	3.6
2	4.32
3	5.148
4	6.2208

b.

x	y
0	4
2	10
4	16
8	28
12	40

c.

x	y
0	0
1	3
2	4.5471
3	5.7995
4	6.8922