

Warm-up

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(1) You have \$6,000 to invest and your money will grow at a 4% interest rate per month.

months	\$
0	6000
1	6240
2	6489.60

Explicit: $\frac{6240}{6000} = 1.04$

$$y = 6000 \cdot 1.04^n$$

(2) The population of seabrook is 55,000 people. The population is decreasing by 16% each year.

$$55000 \times .16 = 8800$$

subtract

Year	Population
0	55,000
1	46,200
2	
3	

Explicit:

$$y = 55000 \cdot .84^x$$

$$\frac{46200}{55000} = .84$$

(3) You take a 100 mg dose of Advil. The drug filters out of your body at a rate of 22% per hour.

Hour	Drug (mg)
0	100
1	78
2	60.84
3	

Explicit:

$$y = 100(.78)^x$$