

Name: _____

Worksheet - Exponential Functions (1)

Directions: State the multiplier. Show your work.

1. 22% growth

1.22

2. 22% decay

.78

3. 8% decay

.92

4. 1.5% growth

1.015

5. 6.1% decay

.939

6. The amount doubles

2

Directions: Determine the exponential function that fits the following scenario.

7.
Initial Value - 25
Factor Change - 1.005

$$y=25(1.005)^x$$

8.
Initial Value - 10,000
Factor Change - 1.4

$$y=10,000(1.4)^x$$

9.
Initial Value - 4500
Factor Change - .86

$$y=4500(.86)^x$$

Directions: What type of change does the change factor imply?

10. 1.25

25% growth

11. .92

8% decay

12. 1.002

0.2% growth

Directions: Determine the exponential function for the following tables.

x	y
0	10
1	30
2	90
3	270

$$y=10(3)^x$$

x	y
0	400
1	200
2	100
3	50

$$y=400(\frac{1}{2})^x$$

x	y
0	1000
1	800
2	640
3	512

$$y=1000(.80)^x$$