

Assignment: Day 2 Linear vs. Exponential

Decide if each context, table, or graph is linear or exponential.

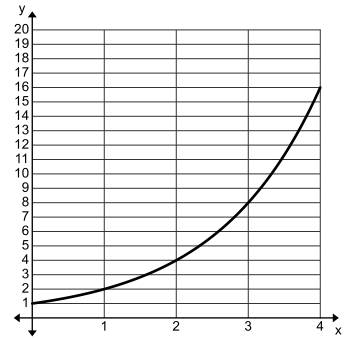
1.

You have a 20 dollars iTunes gift card. You decide to buy some songs for 1 dollar per song.

2.

| x | y |
|---|----|
| 0 | 1 |
| 1 | 3 |
| 2 | 9 |
| 3 | 27 |
| 4 | 81 |

3.



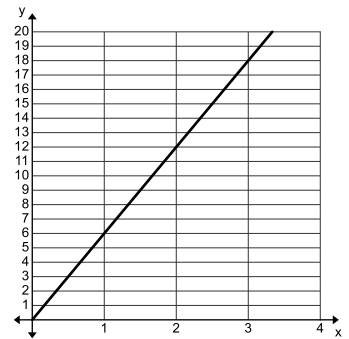
4.

| x | y |
|---|----|
| 0 | 8 |
| 1 | 13 |
| 2 | 18 |
| 3 | 23 |
| 4 | 28 |

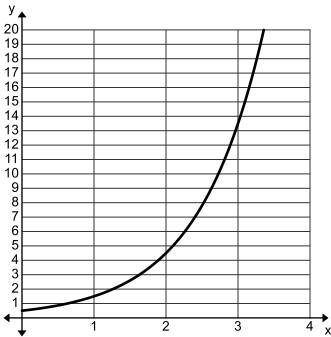
5.

You wake up with 2 chicken pox and each day the number of chicken pox you have triples.

6.



7.



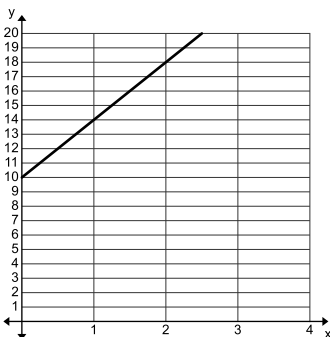
8.

You buy 3 dozen donuts and each day your family eats half of them until they are gone.

9.

| x | y |
|---|----|
| 0 | 20 |
| 1 | 24 |
| 2 | 28 |
| 3 | 32 |
| 4 | 36 |

10.



11.

| x | y |
|---|-------|
| 0 | 4 |
| 1 | 20 |
| 2 | 100 |
| 3 | 500 |
| 4 | 2,500 |

12.

Your cell phone plan is 25 dollars a month plus 10 cents for each minute over your allowance.

13. The BioHealth Company is trying to eliminate the flu. In their research they have come across 2 different strands of the flu. The first strand attacks cells at a rate of 50 cells per hour. The second strand attacks cells at a rate that triples every hour. Complete the table and graph for each strand of the flu.

Strand A

| Time (hours) | Cells |
|--------------|-------|
| 0 | 0 |
| 1 | 50 |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

Strand B

| Time (hours) | Cells |
|--------------|-------|
| 0 | 1 |
| 1 | 3 |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

