**~ Direct Variation in the REAL World ~** Names:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[](http://www.google.com/imgres?num=10&hl=en&tbo=d&biw=1600&bih=697&tbm=isch&tbnid=SeCPt-PbIykHpM:&imgrefurl=http://store.apple.com/us/browse/home/shop_ipod/family/ipod_shuffle&docid=qexTI8tLxGL05M&imgurl=http://store.storeimages.cdn-apple.com/3155/as-images.apple.com/is/image/AppleInc/2012-ipodshuffle-product-initial?wid%3D410%26hei%3D190%26fmt%3Djpeg%26qlt%3D95%26op_sharpen%3D0%26resMode%3Dbicub%26op_usm%3D0.5,0.5,0,0%26iccEmbed%3D0%26layer%3Dcomp&w=410&h=190&ei=rUnuUPOFIYL09gSgmYGQDQ&zoom=1&iact=rc&sig=118279028075191188497&page=1&tbnh=133&tbnw=266&start=0&ndsp=31&ved=1t:429,r:3,s:0,i:173&tx=130&ty=43)

**An iPod Nano can hold up to 16 gigabytes (GB) of data.**

1) How many gigabytes can be stored on 0 iPod Nanos? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) If you have enough iPod Nanos to hold 80 GB, how many of them do you have? \_\_\_\_\_\_\_\_

3) Fill in the table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| X (# of iPods) | 0 | 2 |  |  | 25 |
| Y (total GB) |  |  | 64 | 160 |  |

4) What is the direct variation equation (in the terms of y=kx)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5) Based on this problem, answer the following. (Hint: Refer to the table in #3.)

a. In words, what does the input (x) represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

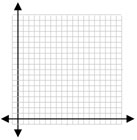
b. In words, what does the output (y) represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. In words, what does the constant (k) represent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6) As the number of iPod Nanos increases, the total number of gigabytes \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7) Look at the values in the table on #3. Write each set of (x,y) values as an ordered pair.

(0, 0) (2, ) \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

8) Graph these ordered pairs below. **Gigabytes on iPod Nanos**

200

150

Total gigabytes

100



50

5 10 15 20 25

# iPod Nanos