Name:_____ Div:_____ Date:_____

1.6 Graphing Relations p. 30

We can use a graph to show the relationship between two quantities.

Let's look at our iTunes collection.

The cost of n CDs, in dollars is 4n.

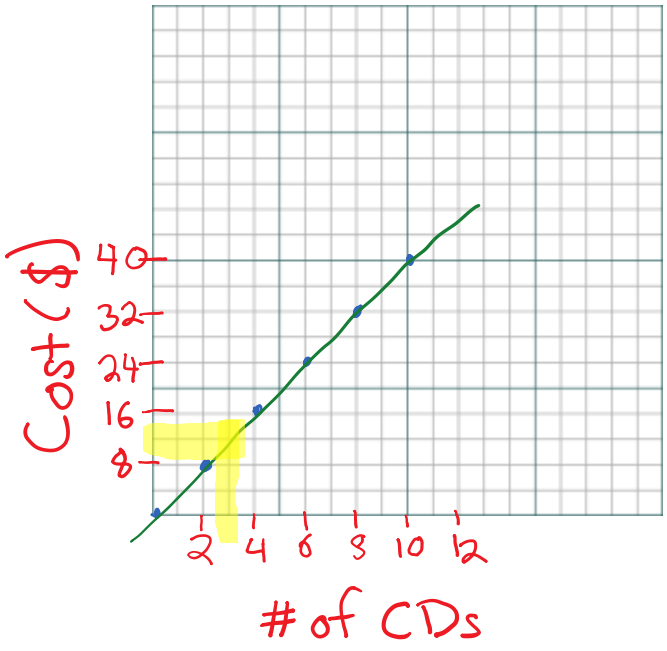
Fill out the table below to show the costs of buying different numbers of CD's.

Number of CDs N	Cost ($) 4n
0	0
2	8
4	16
6	24
8	32
10	40

Input (number of CDs) is plotted on the horizontal axis (x-axis).

Output (cost) is plotted on the vertical axis (y-axis).

When we place a ruler along the points, we notice that they make a straight line= **linear relation**.



Can you find out how much it would cost to buy 5 CDs by looking at your graph?

Name:_____ Div:_____ Date:_____

Let's try:

Ms. Innis has 25 granola bars.

She gives 3 granola bars to each student who stays after school to help prepare for a tournament.

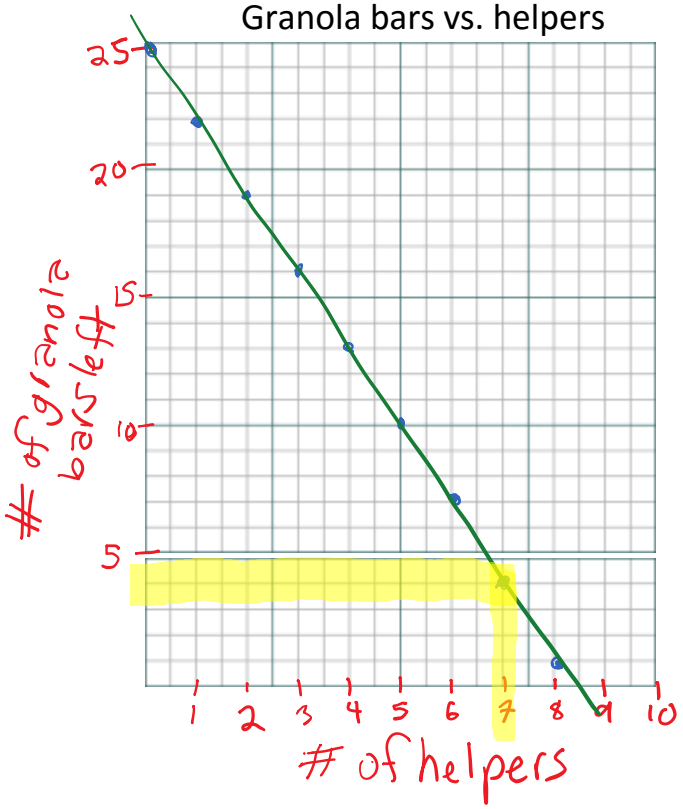
a. Write a relation to show how the number of granola bars that **remain** is related to the number of helpers.

$25 - 3n$

b. Make a table to show the relation.

Number of Helpers N	Number of Granola Bars Left 25 - 3n
0	25-3 (0) =25
1	25-3 (1) =22
2	25-3(2)= 19
3	25-3(3)= 16
4	25-3(4)= 13
5	25-3 (5)= 10

c. Graph the data.



d. Use the graph to answer these questions:

i. How many granola bars remain when 7 students help?
4

ii. When will Ms. Innis not have enough granola bars?
9 helpers

Homework: p. 32 # 1, 3ab, 4ab, 5, 6, 7