

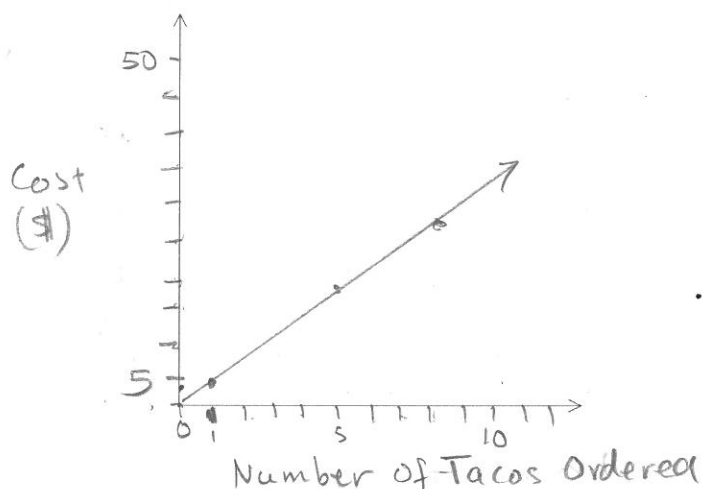
Example 4: Linear Application with Table of Values Given

The cost of tacos purchased depends on the number ordered. The table below shows the cost of purchasing tacos from a food truck.

Number of tacos ordered	1	2	3	5	8
Cost \$	3.50	7.00	10.50	17.50	28.00

a) Graph the scatterplot of the data

window
 $x\text{-min} = 0$
 $x\text{max} = 50$
 $y\text{min} = 0$
 $y\text{max} = 150$



b) Is the relation linear? Explain. If so, sketch the linear regression equation on the grid above, and write the regression equation below.

This is a linear regression because each taco cost \$ 3.50.

$$y = 3.5x$$

c) How much will it cost if 20 tacos are ordered?

2nd TRACE ENTER $x = 20$ $y = 70$

It will cost \$ 70 for 20 tacos

d) How many tacos could you buy with \$100.00?

let $y_2 = 100$ 2nd TRACE 5-intersect ENTER -3 times

$$x = 28.57 \quad \text{when } y = \$100$$

You could buy 28 tacos with \$100.

NOTE you cannot buy a fraction of tacos.