

Creating Equations with Two or More Variables-Step-by-Step Lesson

1. Which equation gives the rule for this table?

x	f(x)
4	14
5	15

a) $f(x) = x+10$

b) $f(x) = 3x+10$

Explanation: Linear functions are of the form $y = mx + b$

First find m . Look at the table and notice that every time the x terms go up by 1, the y terms go up by 1. This means that m is equal to 1.

$$y = mx + b$$

$$14 = 1(4) + b \quad \text{plug in } m=1, x=4, \text{ and } y= 14$$

$$14 = 4 + b$$

$$b = 10$$

$$y = mx + b \quad y = 1x + 10$$

$$14 = 4 + 10$$

$$14 = 14$$

Plug in (5, 15)

$$Y = x + 10 \quad 15 = 5 + 10$$

$$15 = 15$$

$$Y = x + 10$$

$$15 = 5 + 10 \quad 15 = 15$$

So $y = x + 10$ is correct.

