

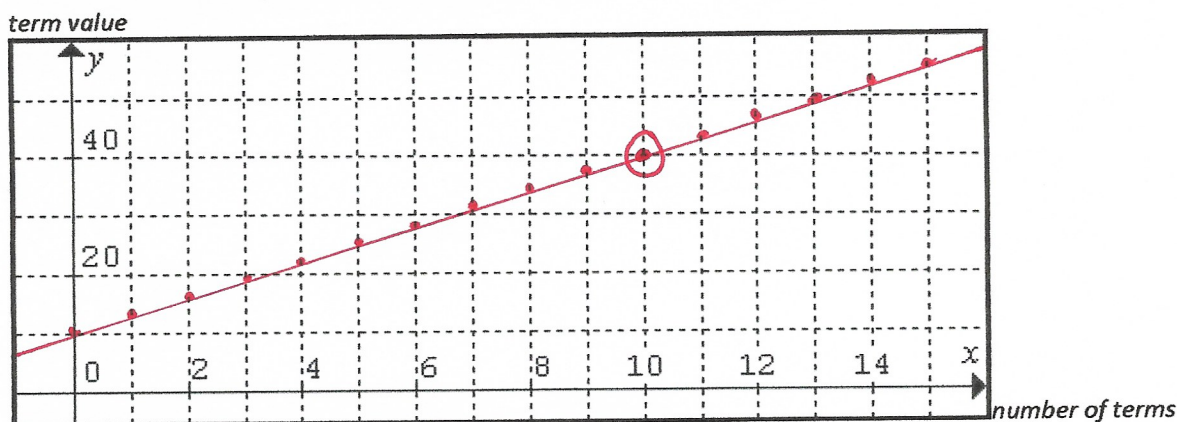
Strand: Algebra

Name: KEY

Skill Addressed – Understanding Functions and their Graphs Blk:     

Activity: *Part 6: Cartesian Coordinates – as the x changes, the graph changes height!*

Here is another grid: Graph  $F(x) = 3x + 10$



Look on the grid to find the value of  $F(10)$ . 40

(This means: Find the output value when the function's input value is 10.)

Note also that you can calculate the value algebraically:

$$F(10) = 3(10) + 10 = 30 + 10 = \underline{40}$$

Circle this point (ordered pair) on the graph.

Notice that 40 is the height of the graph when  $x = 10$ .

Write this as an ordered pair  $(10, 40)$

These are called "Cartesian Coordinates" after René DesCartes who invented the coordinate axes for graphing ordered pairs.

Where is the origin? at (0, 0)

Why do you think it is called the origin? Because all the measuring and counting originates from that point (it means beginning).

What would be the height of the function if the input value was -4? -2

Does this value make sense? Maybe, in some contexts

Does it depend on the context? Explain. It depends on the context; for the address sign, it would not make sense.