**Lesson 3.1 – Representing Proportional Relationships**

**Prior Knowledge** – On a graph, the coordinate point is labeled (x,y) where “x” is the horizontal value and “y” is the vertical value.

**Vocab:**

*Proportional Relationship –* relationship between two quantities in which the ratio of one quantity to the other quantity.

*Constant of Proportionality* – the number that describes how the quantities are connected.

**Equation:**

* Y=KX
* K= $\frac{Y}{X}$
* K is the constant

Ex 1:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number of Hours (x) | 1 | 2 | 4 | 8 |
| Money Earned (y) | 12 | 24 | 48 | 96 |

*Step 1* – Find the Constant (K)

K= $\frac{Y}{X}$ : K =$ \frac{12}{1}$ ; K =$ \frac{24}{2}$ ; K = $\frac{48}{4}$

K = 12, since K is the same number, it is constant

*Step 2 –* Plug K back into equation

y = 12x