Name: ____________________ Date: ___________________

Proportional Situations

Direct Proportionality

- Any situation involving _______________ ratios or rates is a ___________ proportional situation.

- In the ______________________ of a direct proportional situation, the numbers in the first row (or column) -Variable x- and the second row (or column)-Variable y form ____.

Example:

Table of values of a proportional situation:

Salary according to the number of hours worked.

x: Time (h)	0	2	3	5	8
y: Salary ($)	0	8	12	20	32

Salary according to the number of hours worked.

x Time (h)	y Salary ($)
0	0
2	8
3	12
5	20
8	32

- We obtain the numbers in the second row by multiplying each term of the first row by a constant called the _________________________________.

In the above example the salary is **directly proportional** to the number of hours worked.

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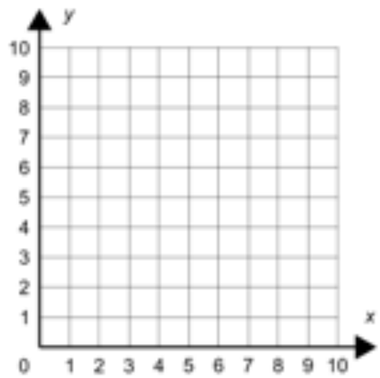
- A direct proportional situation is represented graphically on a graph by a ____________________________ that passes through the ___________.



- The _____________ for a direct proportional situation is of the form

$$\boxed{y=ax}$$

where ___ represents the **coefficient of proportionality**.

Inverse Proportionality

- In an ________________________ situation, the product of the independent variable (x) and the dependent variable (y) remains ______________.

- An inverse proportional situation is represented graphically by a ________ that ____________ approaches the________. **See example on p. 43 in your WB.** When x _________________, y ____________________.

- The ____________ of an inverse proportional situation is