

PROPORTIONAL RELATIONSHIP

Word Problems

Remember, the equation must **only use**

_____ or _____

to be proportional, like $y = 3.5x$ or $y = \frac{x}{3}$.

NON-PROPORTIONAL RELATIONSHIP

Word Problems

Remember, if the equation _____

or _____, it is non-proportional,

like $y = 3.5x + 2$ or $y = -6x - 2$.

How to Write Equations from Word Problems

EXAMPLE: Grande charges \$35 per month, plus a one-time \$50 service fee for internet.

1. Highlight key words and organize your information.
2. Which number is **repeating**? That is your **slope**, the number with the x . Key words like **rate**, **each**, **every**, and **per usually** describe the **slope**.
3. Is there a number that is being **added** or **subtracted**? That is your **y-intercept**. Key words like **plus**, **additionally**, **decreasing**, and **difference** can help us find the **y-intercept**.

Example Word Problems

Cricket Wireless costs \$30 per month.

A plumber charges a \$100 service fee, plus \$50 each hour.

At 6:00pm, the temperature was 100° . After 6:00pm the temperature decreased 4° every hour.

Jeff Smith pays a monthly membership fee of \$40 to go to his gym (and he's still weak like Mr. Myers).

Process