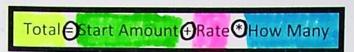
UNIT 2: EQUATIONS & INEQUALIT

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Objectives: I can write equations to model real world problems.

SOLVING WORD PROBLEMS USING EQUATIONS

When a rate and a starting amount are given in a word problem, a similar equation can usually be written and solved.



Starting Amount A flat fee or starting value. This value is a constant. It never changes.

A Rate The following are examples of a rate

- \$3 per day
 - each \$2 an hour
- 60 mph

is a key word that is often associated with rate.

Examples: Write an equation for each situation. Do NOT solve yet!

Sometimes the total is unknown and therefore it will be assigned the variable.

1) A plumber charges \$25 for a service call plus \$50 per hour of service. Write an equation for the cost, C, for 2 hours and 30 minutes

total

2.5 hours

2) Nick collected 100 pounds of aluminum cans to recycle. He plans to collect an additional 25 pounds each week for 2 months (assume four weeks for each month) Write the equation for the total pounds, P, of aluminum cans.

Sometimes there is an amount to be determined and therefore it will be assigned the variable.

3) For babysitting, Nicole charges a flat fee of \$10, plus \$5 per hour. Write an equation if Nicole wants to make a total of \$50 after h hours of babysitting.

50 = 10 + (5)

4) Suppose that the water level of a river is 34 feet and that it is receding at a rate of 0.5 foot per day. Write an equation for the water level after d days to determine how many days will the water level be 26 feet.