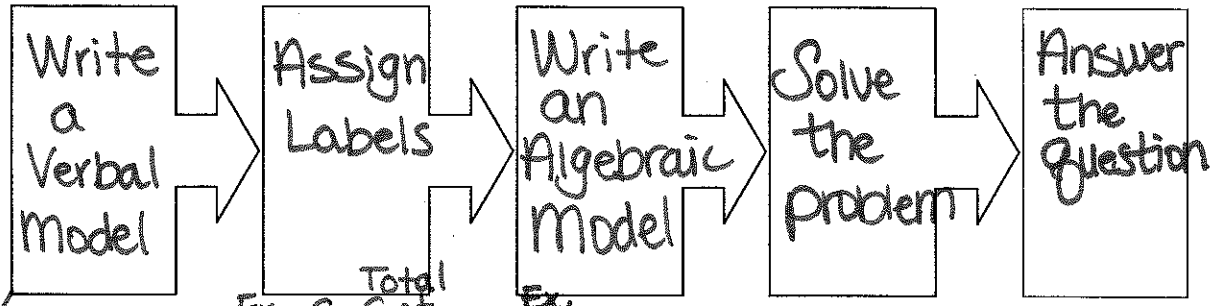
Topic: 1.5 Problem Solving

Name: KEY

The key steps in solving a word problem:



Ex. Total Cost = monthly rate + .25 per minute

Ex. C = Cost (Total) m = minutes

Ex. C = 50 + .25m

1. You have $32 to spend on supplies for your science fair project. If you buy two plants for experiments, you will have $18 left for the other supplies. How much is each plant?

p = plants

$$32 - 2p = 18$$
$$-32 \qquad -32$$
$$-2p = -14$$
$$\frac{-2p}{-2} = \frac{-14}{-2}$$
$$p = 7$$

$7 each plant

2. You are moving to a new apartment and need to hire movers. The movers charge a one-time fee of $90 to rent the truck and then charge $85 per hour for the movers themselves. If the move is expected to take 6 hours, how much will you be paying the movers?

$90 + 85h = \text{Total Cost}$

$h = 6$ hours

$90 + 85(6) = \text{Total Cost}$

$\text{Total Cost} = 90 + 510$

$\text{Total Cost} = \$600$

1.5 Problem Solving

3. Sam pays $105 per month to a provider for her phone, internet, and cable TV plus an additional $0.35 per minute of international calling. If Sam talks on the phone with her cousin from Ireland for 72 minutes in one month, how much will her be for this provider?

$105 + .35m = \text{Total Cost for the month}$

$m = 72$ minutes

$105 + .35(72) = \text{Total Cost}$

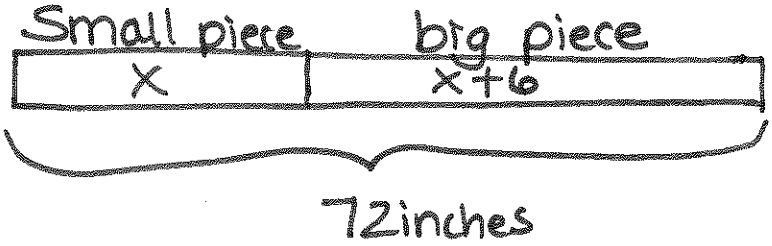
$\text{Total Cost} = 105 + 25.2$

Total Cost = $130.20

4. You are working on a project in woodshop. You have a wooden rod that is 72 inches long. You need to cut the rod so that one piece is 6 inches longer than the other piece. How long should each piece be?

X=Small piece

X+6= big piece



$x + x + 6 = 72$

$2x + 6 = 72$

$-6 \quad -6$

$2x = 66$

$x = 33$

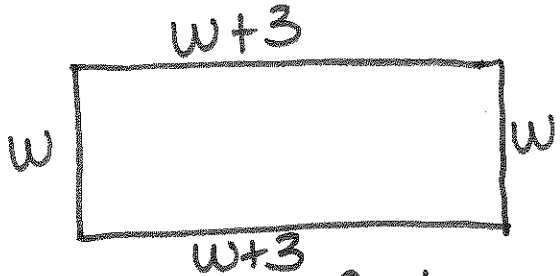
Small piece = 33 inches

big piece = 39 inches

5. You have 480 feet of fencing to enclose a rectangular garden. You want the length of the garden to be 3 feet greater than the width. Find the length and the width of the garden if you use all the fencing.

length = w+3

width = w



Perimeter = 480 feet

$w + 3 + w + 3 + w + w = 480$

$4w + 6 = 480$

$-6 \quad -6$

$\frac{4w}{4} = \frac{474}{4}$

$w = 118.5$

width = 118.5 feet

length = 121.5 feet