

TIPS PROBLEMS INVOLVING EQUATIONS

1. In $\triangle ABC$, the measure of $\angle ABC$ is double the measure of $\angle CAB$. The measure of $\angle BCA$ is 30° greater than the measure of the smaller of the other two angles. Find the measure of each angle.

2. Naquan is saving nickels and dimes in a jar. The jar contains 10 more nickels than dimes. Altogether, the value of the coins is \$16.25. How many nickels and dimes are in the jar?

<i>Coin</i>	<i>Value of One Coin</i>	<i>Number of Coins</i>	<i>Value of Coins</i>
Dime	\$0.10	d	
Nickel	\$0.05		
Total	N/A		\$16.25



Nickel = 5^c = \$0.05



Dime = 10^c = \$0.10

3. Solution A is 50% hydrochloric acid by volume, while solution B is 75% hydrochloric acid by volume. How many litres of each solution should be used to make 100 litres of a solution which is 60% hydrochloric acid by volume?

Solution (of Problem)

<i>Solution</i>	<i>% of acid</i>	<i>Volume of the Solution (L)</i>	<i>Volume of Acid in the Solution (L)</i>
Solution A	50% = 0.5	a	
Solution B	75% = 0.75		
Mixture	60% = 0.6		