HOW TO APPROACH PROBLEMS IN MATH

Step # 1: Ask yourself: *"What am I being asked to find?"*

Step # 2: Ask yourself: *"What information do I need to know to solve this problem?"*

YOU NEED TO KNOW THE ANSWERS TO STEPS ONE AND TWO IF YOU ARE TO HAVE ANY CHANCE OF SOLVING THE PROBLEM.

Step # 3: Ask yourself: *"Have I been **given** all of the information that I need (in step 2) in order to determine what I have been asked to find (in step 1).*

IF THE ANSWER TO STEP THREE IS *"YES"*, THEN GO AHEAD AND SOLVE THE PROBLEM!!

IF THE ANSWER TO STEP THREE IS *"NO"* THEN MOVE TO STEP FOUR

Step # 4:   Ask yourself: *"Can I use the information that I **have** been given, to find the missing pieces (from step 2) that I need to solve the problem?"*

IF YOU HAVE REACHED STEP FOUR, THE ANSWER WILL ALMOST ALWAYS BE *"YES"* BECAUSE IF THE ANSWER TO THIS QUESTION IS *"NO"*, THE PROBLEM IS IMPOSSIBLE TO SOLVE

!!! SOME EXAMPLES ARE ON THE BACK !!!

HOW TO APPROACH PROBLEMS IN MATH
(EXAMPLES)

SIMPLE EXAMPLE:

1.) John has a triangle shaped garden. The lengths of each side of the garden are 5m, 4m and 3 m. Find the perimeter of the garden.

What am I being asked to find?   **The perimeter of the garden**

What information do I need to know to solve this problem? **The lengths of each of the sides**
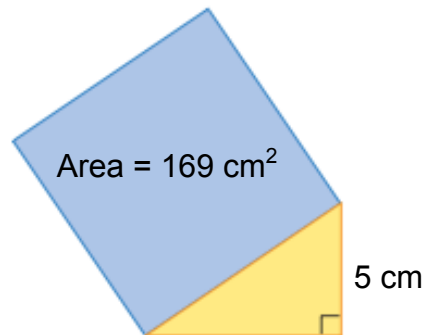
Have I been given all of the information that I need to solve the problem?   **YES (5 m, 4 m and 3 m)**

I CAN NOW SOLVE THIS PROBLEM BY ADDING THE LENGTHS OF THE SIDES TOGETHER TO DETERMINE THE PERIMETER OF THE GARDEN.

MORE DIFFICULT EXAMPLE:

2.) The right angle triangle below has a square attached to its hypotenuse. What is the perimeter of the triangle?

Area = 169 cm^2

5 cm

What am I being asked to find?   **The perimeter of the triangle**

What information do I need to know to solve this problem? **The lengths of each of the sides of the triangle**

Have I been given all of the information that I need to solve the problem?   **NO**

Can I use the information that I have been given to find the missing pieces that I need to solve the problem?   **YES. I can use the square root of the area of the square to find the length of the hypotenuse of the triangle, and can then use the Pythagorean Relationship to find the length of the third side.**

Now I have all of the information I need to solve this problem (the lengths of all three sides of the triangle), so I can add them together, and will have solved the problem.