

## Day 9

Note for the problem in the box :

After you square the number, try writing it in the form  $\square + \square w$ .

Write at least 3 sentences about what you noticed on the first page of today's problems.

# Observations on anything up to #4 Day 9:

- #2 & #3 Day 9:
- Side opposite the  $60^\circ$  seems to always be the longest.  
But wait ... see  $\triangle MEG$  on #2.
- $N(5+2w)$  gives  $RY$  in  $\triangle ROY$  ← aka. TROY  
Squaring  $(5+2w)$  gives the other 2 sides
- $(a+bw)^2$  will result in  $\underbrace{a^2 - b^2}_{\text{one side}} + \underbrace{(2ab - b^2)w}_{\text{another side}}$   
 $N(a+bw)$  gives the third side
- $N(a+bw) = a^2 + b^2 - ab$