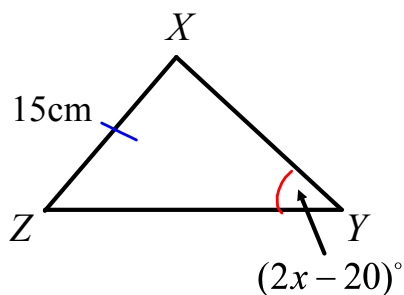
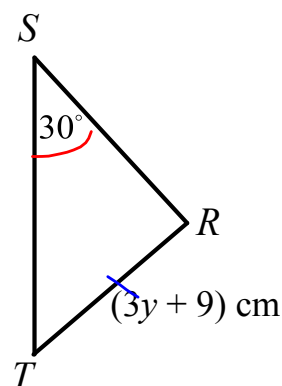


**DO NOW**

$\triangle XYZ \cong \triangle RST$ . Find  $x$  and  $y$ .



$$\begin{aligned} \angle Y &\cong \angle S \\ 2x - 20 &= 30 \\ 2x &= 50 \\ \boxed{x = 25} \end{aligned}$$



$$\begin{aligned} \overline{XZ} &\cong \overline{RT} \\ 3y + 9 &= 15 \\ 3y &= 6 \\ \boxed{y = 2} \end{aligned}$$

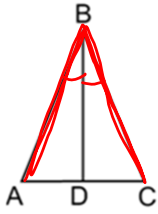
Oct 12-3:23 PM

Drawing Conclusions based on Givens

- Start by marking the given information on your diagram (using hash marks, arcs, etc.).
- Remember your definitions! If the given information contains definitions, be sure to use them as they are "hints" to the solution.
- Make no assumptions!!

Oct 26-6:59 AM

1. Given:  $\overline{BD}$  bisects  $\angle ABC$



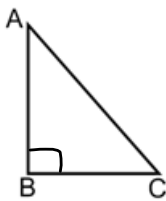
★ Angle ABC is being  
cut in half ★

Conclusion:  $\angle ABD \cong \angle CBD$

Reason: An angle bisector  
divides an angle into  
2  $\cong$  angles

Nov 8-10:53 AM

2. Given: In  $\triangle ABC$ ,  $\overline{AB} \perp \overline{BC}$



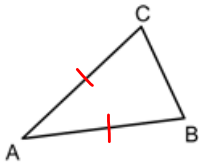
perpendicular

Conclusion:  $\angle ABC$  is a right  $\angle$

Reason: Perpendicular lines  
form right  $\angle$ 's

Nov 9-1:17 PM

3. Given:  $\triangle ABC$  is an isosceles triangle with  
base  $\overline{BC}$

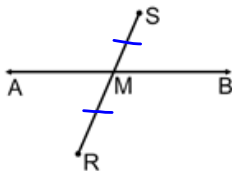


Conclusion:  $\overline{AC} \cong \overline{AB}$

Reason: An isosceles  $\triangle$  has  
2  $\cong$  sides

Nov 9-1:17 PM

4. Given:  $M$  is the midpoint of  $\overline{RS}$

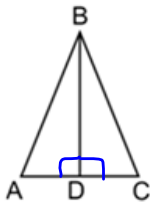


Conclusion:  $\overline{RM} \cong \overline{MS}$

Reason: A midpoint divides  
a segment into 2  
 $\cong$  segments

Nov 9-1:17 PM

5. Given:  $\overline{BD}$  is an altitude of  $\triangle ABC$



Conclusions: ①  $\overline{BD} \perp \overline{AC}$

and  $\angle BDC + \angle BDA$  are right  $\angle$ 's

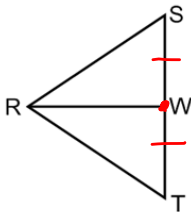
Reasons: ① Altitude of a triangle is  $\perp$  to the side it intersects

②  $\perp$  lines form right  $\angle$ 's

③  $\angle BDC \cong \angle BDA$  because all right  $\angle$ 's are  $\cong$

Nov 9-1:17 PM

6. Given:  $\overline{RW}$  is a median of  $\triangle RST$



Conclusions: ①  $W$  is midpoint of  $\overline{ST}$   
and  $\overline{TW} \cong \overline{SW}$

Reasons: ① Median of a  $\triangle$  goes from vertex to midpoint of opp. side

② Midpoint divides a segment into 2  $\cong$  segments

Nov 8-10:54 AM