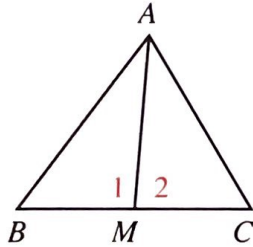


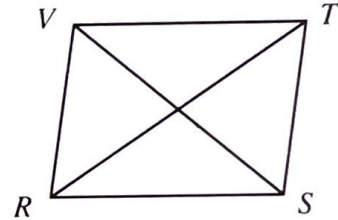
Written Exercises

What can you deduce? Name the theorem that supports your answer.

- A** 1. Given: \overline{AM} is a median of $\triangle ABC$;
 $AB > AC$

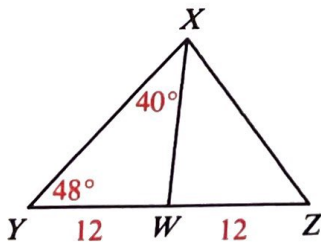


2. Given: $\square RSTV$;
 $m\angle TSR > m\angle VRS$

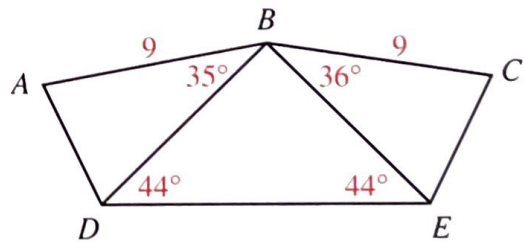


Complete the statements by writing $<$, $=$, or $>$.

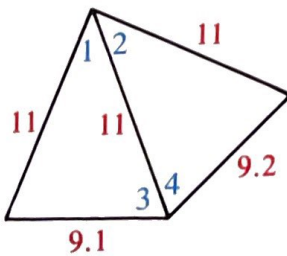
3. $XY \stackrel{?}{=} XZ$;
 $XW \stackrel{?}{=} 12$



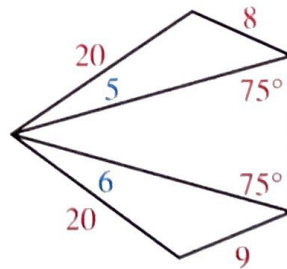
4. $AD \stackrel{?}{=} CE$



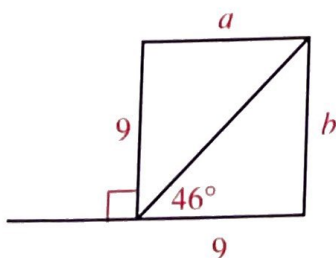
5. $m\angle 1 \stackrel{?}{=} m\angle 2$;
 $m\angle 3 \stackrel{?}{=} m\angle 4$



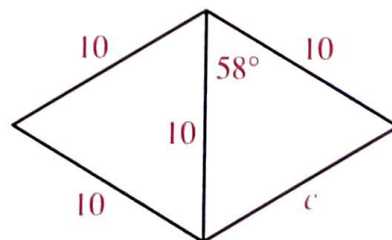
6. $m\angle 5 \stackrel{?}{=} m\angle 6$



7. $a \stackrel{?}{=} b$.

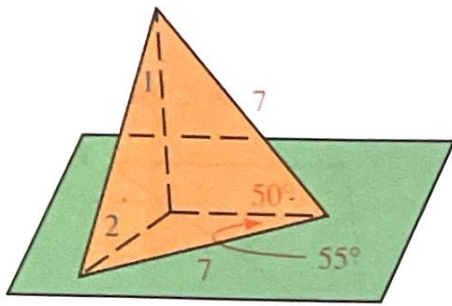


8. $c \stackrel{?}{=} 10$

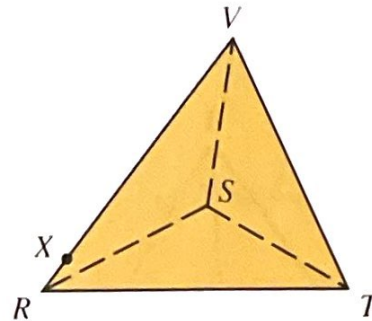


Complete the statements by writing $<$, $=$, or $>$.

B 9. $m\angle 1$? $m\angle 2$

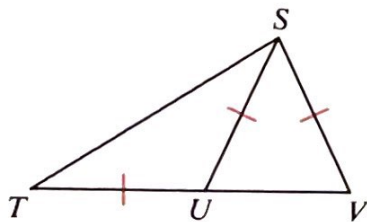


10. $SR = ST$; $VX = VT$
 $m\angle RSV$? $m\angle TSV$

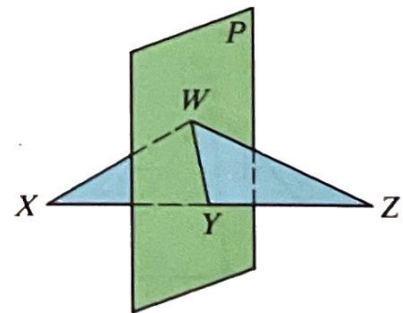


Write proofs in two-column form.

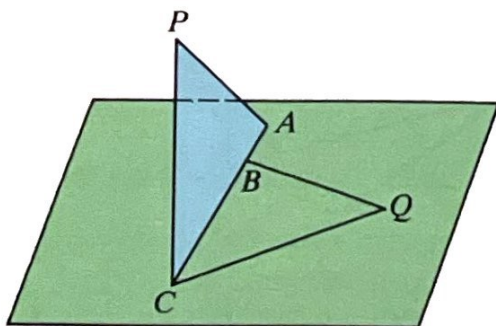
11. Given: $\overline{TU} \cong \overline{US} \cong \overline{SV}$
 Prove: $ST > SV$



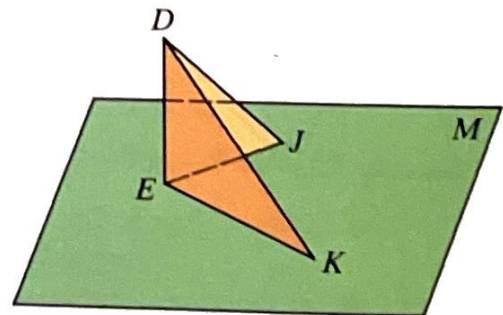
12. Given: Plane P bisects \overline{XZ} at Y ;
 $WZ > WX$
 Discover and prove something about the figure.



C 13. Given: $\overline{PA} \cong \overline{PC} \cong \overline{QC} \cong \overline{QB}$
 Prove: $m\angle PCA < m\angle QCB$



14. Given: $\overline{DE} \perp$ plane M ; $EK > EJ$
 Prove: $DK > DJ$
 (Hint: On \overline{EK} , take Z so that $EZ = EJ$.)



15. In the three-dimensional figure shown, all the edges *except* \overline{VC} are congruent. What can you say about the measures of the largest angles of the twelve angles in the figure
- if \overline{VC} is longer than the other edges?
 - if \overline{VC} is shorter than the other edges?

