

ANSWERS

DIRECTIONS: For #1-9, fill in the blanks with the most accurate responses.

1. If $\triangle ABC \cong \triangle ZXY$, then $\sphericalangle A \cong \sphericalangle Z$
2. If $\triangle ABC \cong \triangle ZXY$, then $\sphericalangle B \cong \sphericalangle X$
3. If $\triangle ABC \cong \triangle ZXY$, then $\sphericalangle C \cong \sphericalangle Y$
4. If $\triangle ABC \cong \triangle ZXY$, then $\overline{AB} \cong \overline{ZX}$
5. If $\triangle ABC \cong \triangle ZXY$, then $\overline{BC} \cong \overline{XY}$
6. If $\triangle ABC \cong \triangle ZXY$, then $\overline{AC} \cong \overline{ZY}$

7. What is the reason why each of #1-6 is true? **CPCTC**

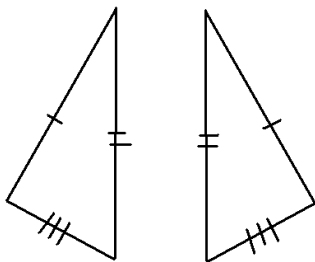
8. In $\triangle ABC$, what angle is included between \overline{BC} and \overline{CA} ? **$\sphericalangle C$**

9. "CPCTC" stands for

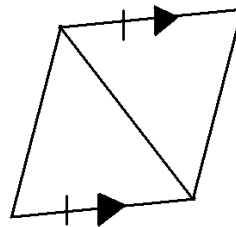
**Corresponding Parts of Congruent Triangles are Congruent
(Corr Parts of $\cong \Delta$ s are \cong)**

DIRECTIONS: For #10-13, write the postulate or theorem you could use to prove the triangles congruent. If none exist, write "NONE."

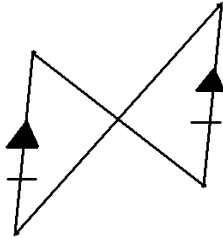
10. SSS



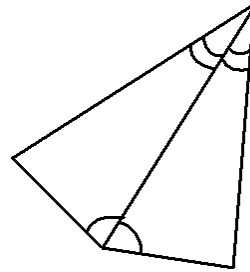
11. SAS



12. AAS or ASA



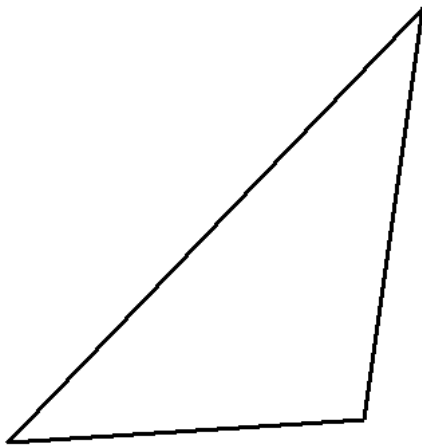
13. ASA (or AAS if you mark third angles congruent)



DIRECTIONS: Use a straightedge and a compass to complete the construction.

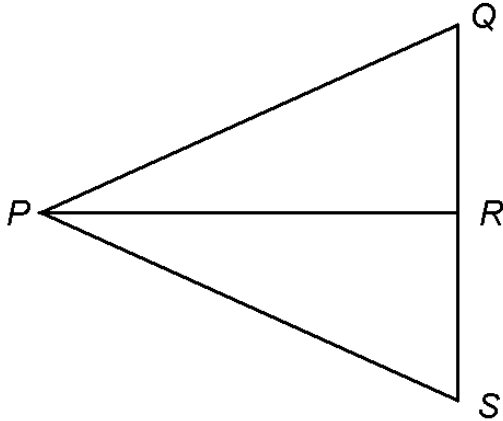
14. Construct a copy of this triangle

(This may help → <https://youtu.be/KuRmdHz-8Y>)



DIRECTIONS: For #15, complete the proof. Be neat. Show work on diagram.

15



Given: \overrightarrow{PR} bisects $\angle QPS$;
 $\overline{PR} \perp \overline{QS}$

Prove: $\triangle PQR \cong \triangle PSR$

1. \overrightarrow{PR} bisects $\angle QPS$
2. $\angle QPR \cong \angle SPR$
3. $\overline{PR} \cong \overline{PR}$
4. $\overline{PR} \perp \overline{QS}$
5. $\angle PRQ$ is a right angle;
 $\angle PRS$ is a right angle
6. $\angle PRQ \cong \angle PRS$
7. $\triangle PQR \cong \triangle PSR$

1. GIVEN
2. Definition of angle bisector
3. Reflexive Property
4. GIVEN
5. Definition of perpendicular lines
6. All right angles are \cong
7. ASA

There are several ways to get from step 4 to step 6 – this is one example