

Geometric Conditions - Congruence - Worksheet 1

1 Triangle ABC is congruent to Triangle A'B'C' if BC is represented by $3x-20$ and B'C' is represented by $2x-10$. Find the value of x .

2 Polygon WXYZ is congruent to polygon W'X'Y'Z'. If $\angle W = 10^\circ$, the value of angle W' is $3x-13$ and the value of angle Y is $2x+23$. Find angle Y.

3 Triangle LMN is congruent to Triangle ABC with $LM \cong AB$. If $LM = 3x-36$, and $AB = 3x+4$. Find the value of x .

4 Triangle XYZ is congruent to Triangle Y'Z'. If angle Z is represented by $4x+4$ and angle Z' is represented by $3x+3$. Find the measure of angle Z.

5 Triangle PQE is congruent to Triangle QRE if PE is represented by $4x+2$ and QE is represented by $x+37$. Find the value of x .

6 Polygon PQRS is congruent to polygon PQRS'. If $\angle P = 7^\circ$, the value of angle P' is $3x+20$ and the value of angle R is $2x+33$. Find angle R.

Identify True or False dealing with Geometric Congruent



7 If $BD=DC$, $AB \cong AC$ then $\angle BAD$ will be Congruent to $\angle CAD$.

8 If $AB \cong AC$ and $BD \cong DC$, AD will be not equal to AD .

9 SAS properly is used to prove the two triangles congruent.

10 AAS cannot be used in proving triangles congruent.