Name: _____

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Mastery Quiz

Date: / /

SCORE

1 2 3 4 5

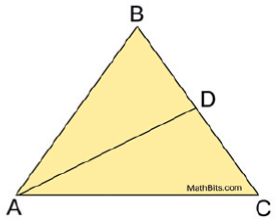
SSS, SAS, ASA, AAS, and HL Proofs

1

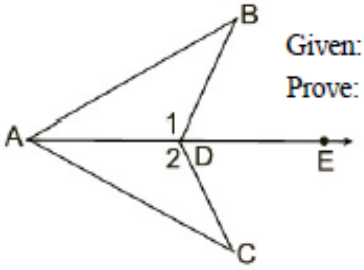
Given: $\overline{AD}$ bisects $\angle BAC$

$\overline{AD} \perp \overline{BC}$

Prove: $\Delta ABC \cong \Delta ADC$



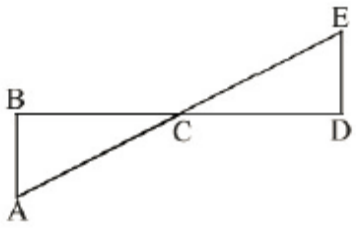
2



Given: $\overline{AE}$ bisects $\angle BAC$; $\overline{AB} \cong \overline{AC}$

Prove: $\angle B \cong \angle C$

3



Given: C midpoint of $\overline{BD}$

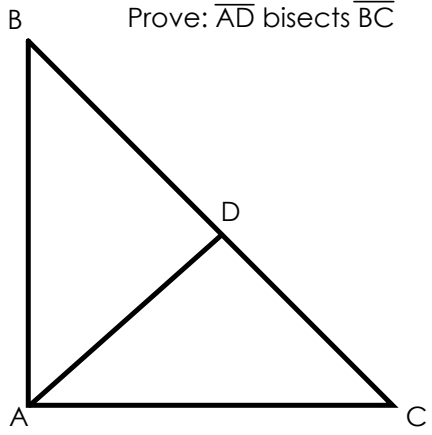
$\overline{AB} \perp \overline{BD}$; $\overline{ED} \perp \overline{BD}$

Prove: $\measuredangle A \cong \measuredangle E$

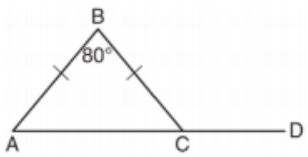
4

Given: $\overline{AD}$ is the altitude of $\triangle ABC$ and $\overline{AB} = \overline{AC}$

Prove: $\overline{AD}$ bisects $\overline{BC}$

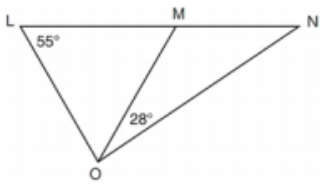


5 In the diagram below of isosceles $\triangle ABC$, the measure of vertex angle B is 80°. If $\overline{AC}$ extends to point D, what is $m\angle BCD$?



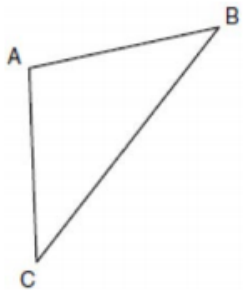
6 In $\triangle JKL$, $\overline{JL} \cong \overline{KL}$. If $m\angle J = 58$, then $m\angle L$ is

7 In the diagram below, $\triangle LMO$ is isosceles with $LO = MO$.



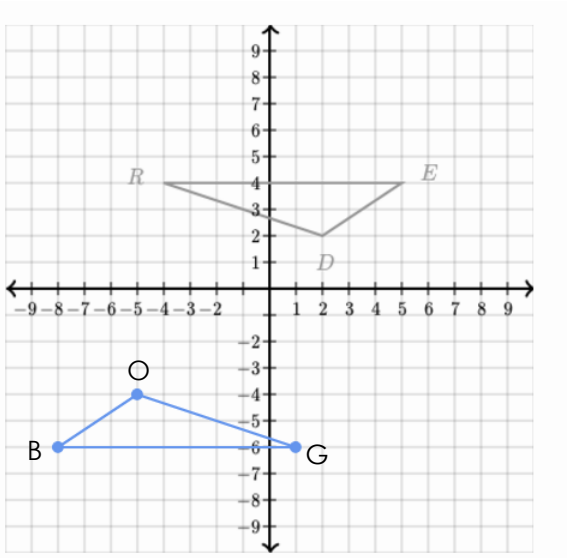
If $m\angle L = 55$ and $m\angle NOM = 28$, what is $m\angle N$?

8 In the diagram of $\triangle ABC$ below, $\overline{AB} \cong \overline{AC}$. The measure of $\angle B$ is 40°.



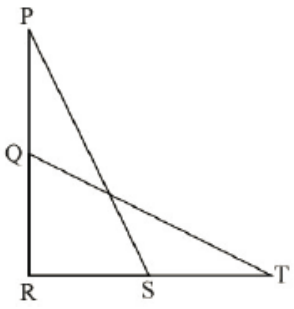
What is the measure of $\angle A$?

9



Using the properties of rigid motions, prove △BOG ≅ △EDR

10



Given: $\measuredangle P \cong \measuredangle T$

$\overline{PR} \cong \overline{RT}$

Prove: $\overline{PQ} \cong \overline{TS}$

Describe a sequence rigid motion that maps △PRT onto △TRQ