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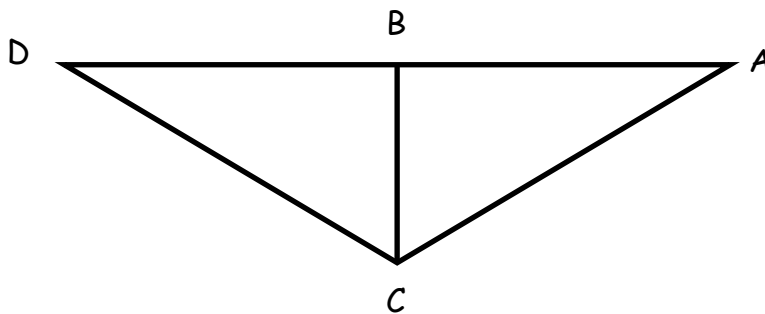
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Chapter 4 Reteach Packet

1. If $\triangle RST \cong \triangle XYZ$, $m\angle X = 50$, $m\angle S = 40$, and $m\angle Z = 5x - 10$. Draw and label the triangles. Find x and $m\angle T$. Classify the triangles. Show all work.

$x =$ _____ $m\angle T =$ _____ Classify : _____

2. $\angle ABC \cong \angle CBD$ and B is the midpoint of \overline{AD} . Mark all corresponding congruent parts of the triangles. Which postulate(s) can be used to prove $\triangle CAB \cong \triangle CDB$?

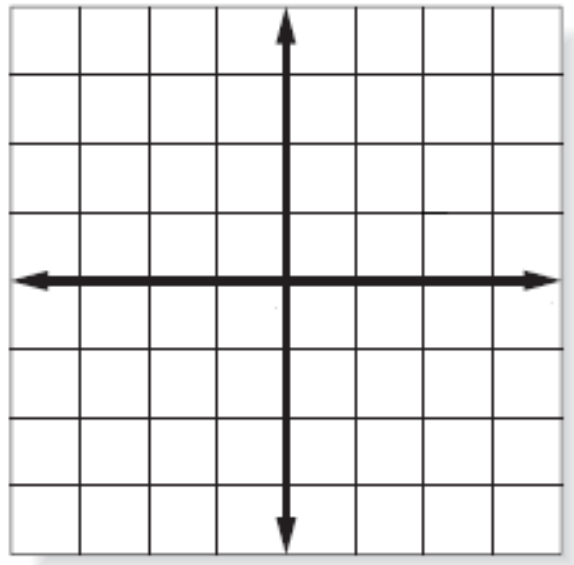


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3. Graph the triangles with the given vertices. Determine whether $\triangle JKL \cong \triangle MNO$. If the triangles are congruent, which postulate(s) can be used to prove congruence? Justify your answer. Show all work.

$J(-2, -3)$, $K(-3, -3)$, $L(-3, -1)$, $M(2, 3)$, $N(3, 3)$, $O(3, 1)$

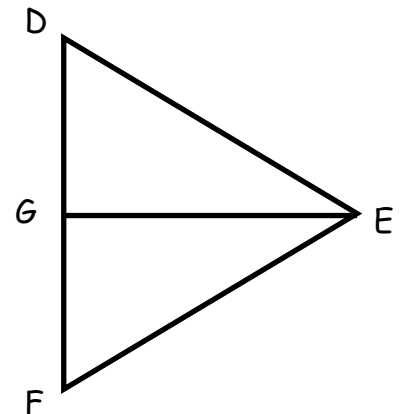


4. $\triangle DEF$ is equilateral. EG bisects $\angle DEF$. $\angle GED = 10z$, $FE = 8x - 6$, $DG = 3x + 1$. $\angle EGF = 9y$. Mark the triangles with the given values and all congruent parts. Find the values of x , y and z

$x =$ _____

$y =$ _____

$z =$ _____

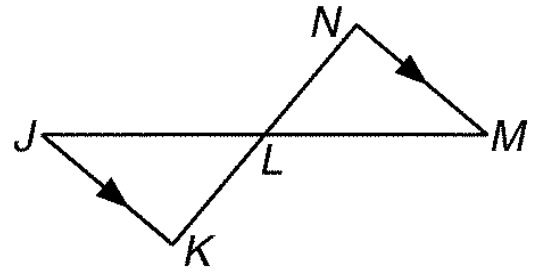


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5. Given: \overline{KN} bisects \overline{JM}

- a) Mark all congruent parts on the triangles.
- b) Are the triangles congruent? Yes/No
- c) If the triangles are congruent, what postulate(s) can be used to prove congruence?



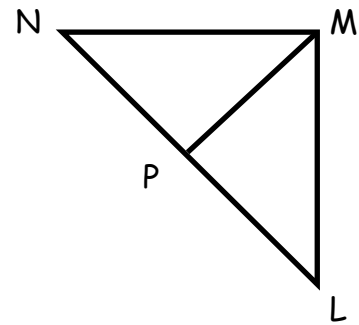
d) Congruence Statement : _____

6. Given: $\overline{LM} \cong \overline{NM}$

P is the midpoint of \overline{LN}

Mark all congruent parts on the triangles

Δ _____ \cong Δ _____ by _____

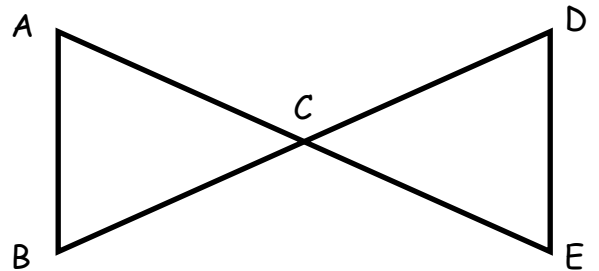


7. Given: C is the midpoint of \overline{BD}

\overline{BD} bisects \overline{AE}

Mark all congruent parts on the triangles

Δ _____ \cong Δ _____ by _____



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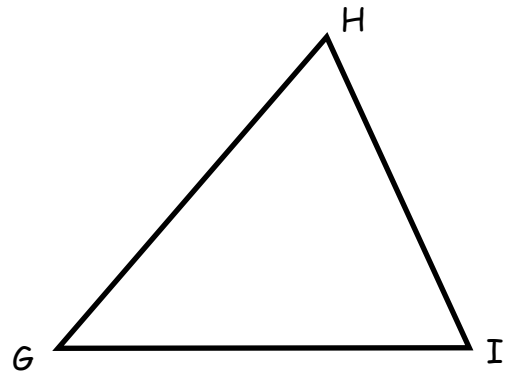
8. $GH = 5y + 1$, $GI = 4y + 7$, and $HI = 2x - 2$. Find y , GH , HI and GI if $\triangle GHI$ is an isosceles triangle with $\overline{GH} \cong \overline{GI}$. Show all work.

$y =$ _____

$GH =$ _____

$HI =$ _____

$GI =$ _____



9. Find each angle measure. Show all work.

$m\angle 1 =$ _____

$m\angle 2 =$ _____

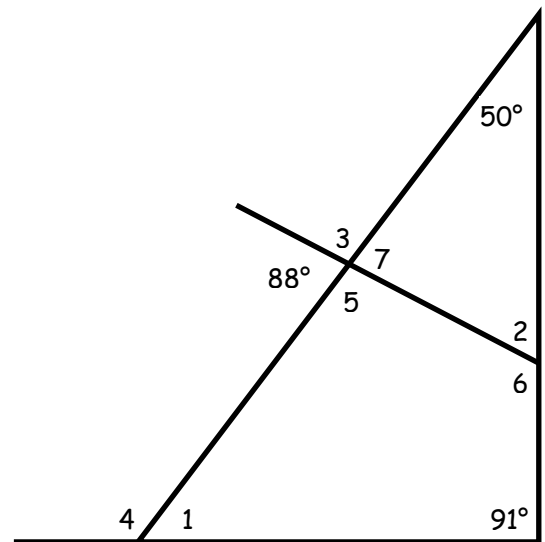
$m\angle 3 =$ _____

$m\angle 4 =$ _____

$m\angle 5 =$ _____

$m\angle 6 =$ _____

$m\angle 7 =$ _____



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10. Given $\triangle QRS$ with $\angle Q = 3z + 11$, $\angle R = 5z$ and $\angle S = 4z + 13$.

a) Draw and label a figure to illustrate $\triangle QRS$

b) Find the measure of each angle of $\triangle QRS$. Show all work.

$$\angle Q = \underline{\hspace{2cm}}$$

$$\angle R = \underline{\hspace{2cm}}$$

$$\angle S = \underline{\hspace{2cm}}$$

c) Classify $\triangle QRS$