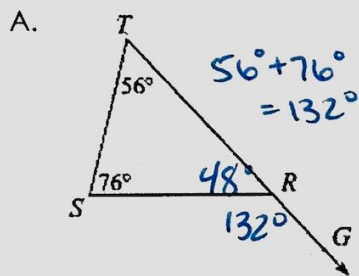


1. Using the following image, find each missing angle measurement.

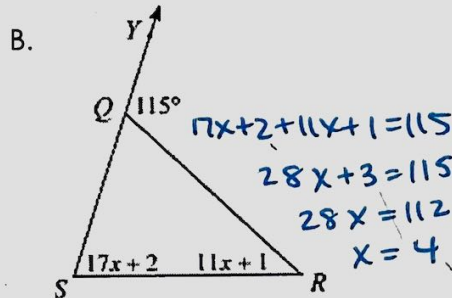
$m\angle c = \underline{68^\circ}$	$m\angle j = \underline{42^\circ}$
$m\angle e = \underline{84^\circ}$	$m\angle n = \underline{63^\circ}$
$m\angle g = \underline{96^\circ}$	$m\angle p = \underline{117^\circ}$
$m\angle h = \underline{96^\circ}$	

$m\angle a = 110^\circ, m\angle f = 42^\circ, m\angle m = 75^\circ$

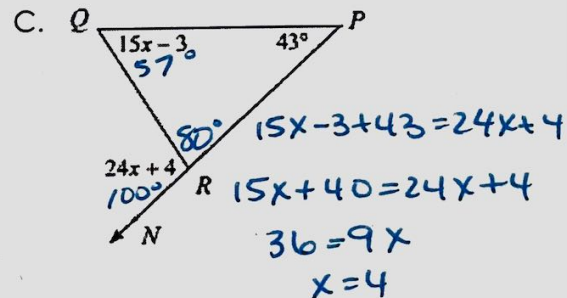
2. Using the following figures, solve the needed values.



$m\angle SRG = \underline{132^\circ}$
 $m\angle TRS = \underline{48^\circ}$

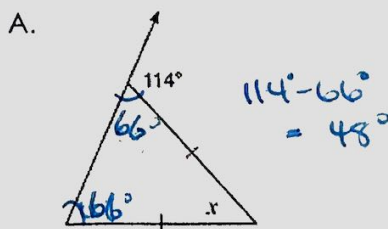


$x = \underline{4}$
 $m\angle R = \underline{45^\circ}$
 $11(4) + 1$



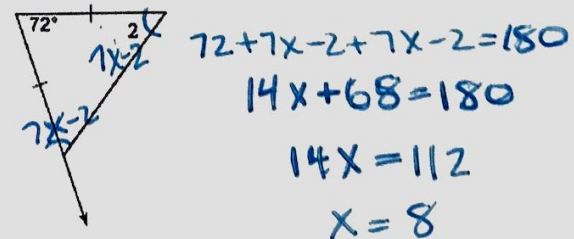
$x = \underline{4}$
 $m\angle PRQ = \underline{80^\circ}$
 $m\angle Q = \underline{57^\circ}$
 $\hookrightarrow 15(4) - 3$

3. Using the Isosceles triangles, solve for the missing information.



$x = \underline{48^\circ}$

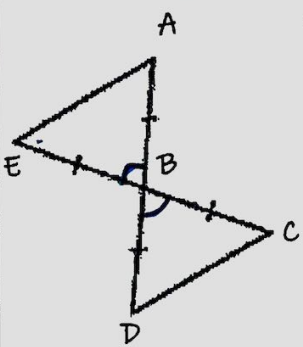
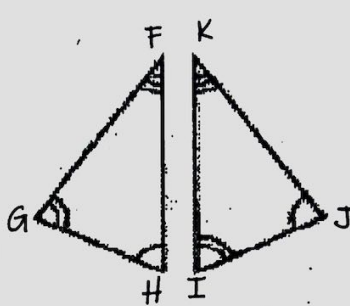
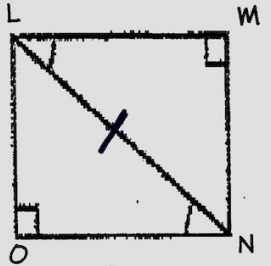
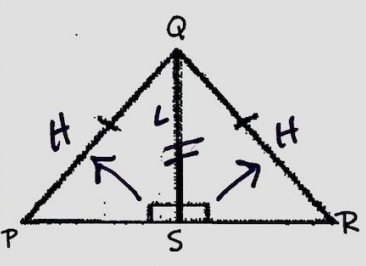
B. $m\angle 2 = 7x - 2$



$x = \underline{8}$
 $m\angle 2 = \underline{54^\circ}$
 $\hookrightarrow 7(8) - 2$

4. State whether these triangles are congruent by SSS, SAS, ASA, AAS, HL, or none and **circle the answer**.

Write a Congruence Statement if and only if the triangles are congruent.

 <p> <input checked="" type="radio"/> SAS <input type="radio"/> SSS <input type="radio"/> ASA <input type="radio"/> AAS <input type="radio"/> HL <input type="radio"/> NONE </p> <p>Statement: $\triangle ABE \cong \triangle CBA$ or $\triangle DBC$</p>	 <p> <input type="radio"/> SAS <input type="radio"/> SSS <input type="radio"/> ASA <input type="radio"/> AAS <input type="radio"/> HL <input checked="" type="radio"/> NONE </p> <p>AAA does not prove triangles are congruent. Statement: $\triangle GHF \cong$ _____</p>
 <p> <input type="radio"/> SAS <input type="radio"/> SSS <input type="radio"/> ASA <input checked="" type="radio"/> AAS <input type="radio"/> HL <input type="radio"/> NONE </p> <p>Statement: $\triangle OLN \cong \triangle MNL$</p>	 <p> <input type="radio"/> SAS <input type="radio"/> SSS <input type="radio"/> ASA <input type="radio"/> AAS <input checked="" type="radio"/> HL <input type="radio"/> NONE </p> <p>Statement: $\triangle RSQ \cong \triangle PSQ$</p>

5. If $\triangle FUN \cong \triangle DAY$, then:

a. $\angle F \cong \angle D$

b. $\angle U \cong \angle A$

c. $\angle N \cong \angle Y$

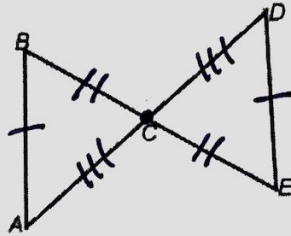
d. $\overline{FU} \cong \overline{DA}$

e. $\overline{UN} \cong \overline{AY}$

f. $\overline{FN} \cong \overline{DY}$

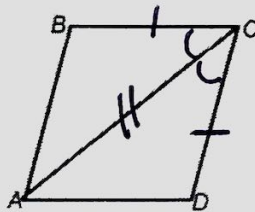
6. Given: $\overline{BA} \cong \overline{ED}$
 C is the midpoint of \overline{BE} and \overline{AD}

Prove: $\triangle ABC \cong \triangle DEC$



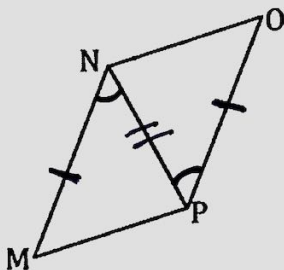
Statement	Reason
1. $\overline{BA} \cong \overline{ED}$	Given
2. C is the midpoint of \overline{BE} and \overline{AD}	Given
3. $\overline{BC} \cong \overline{EC}$	Def. of midpoint
4. $\overline{AC} \cong \overline{DC}$	Def. of midpoint
5. $\triangle ABC \cong \triangle DEC$	SSS

7. Given: $\overline{BC} \cong \overline{DC}$
 AC bisects $\angle BCD$
- Prove: $\triangle ABC \cong \triangle CDA$



Statement	Reason
1. $\overline{BC} \cong \overline{DC}$	Given
2. AC bisects $\angle BCD$	Given
3. $\angle BCA \cong \angle DCA$	Def. of angle bisector
4. $\overline{AC} \cong \overline{AC}$	Reflexive Property
5. $\triangle ABC \cong \triangle CDA$	SAS

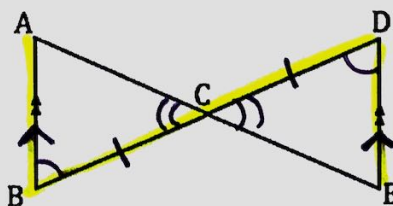
8. Given: $\angle MNP \cong \angle OPN$, and $\overline{MN} \cong \overline{OP}$



Prove: $\overline{MP} \cong \overline{NO}$

Statements	Reasons
1. $\angle MNP \cong \angle OPN$	1. Given
2. $\overline{MN} \cong \overline{OP}$	2. Given
3. $\overline{NP} \cong \overline{NP}$	3. Reflexive Property
4. $\triangle MNP \cong \triangle OPN$	4. SAS
5. $\overline{MP} \cong \overline{NO}$	5. CPCTC

9. Given: $\overline{AB} \parallel \overline{DE}$, \overline{AE} bisects \overline{BD}



Prove: $\overline{AC} \cong \overline{EC}$

Statements	Reasons
1. $\overline{AB} \parallel \overline{DE}$	1. Given
2. \overline{AE} bisects \overline{BD}	2. Given
3. $\angle ABC \cong \angle EDC$	3. Alternate Interior Angles
4. $\angle ACB \cong \angle DCE$	4. Vertical Angles
5. $\overline{BC} \cong \overline{EC}$	5. Def of Bisect
6. $\triangle ABC \cong \triangle EDC$	6. ASA
7. $\overline{AC} \cong \overline{EC}$	7. CPCTC