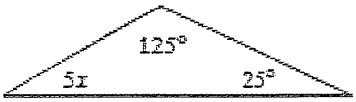
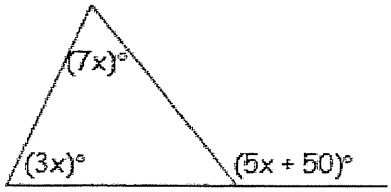
Geometry 4.1-4.4 Triangle Congruence Quiz Review Name_____

Show all work for full credit:

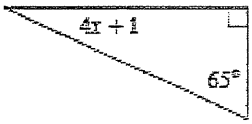
1. Solve for x



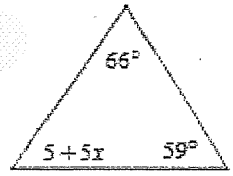
2. Solve for x



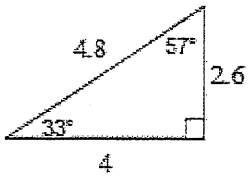
3. Solve for x



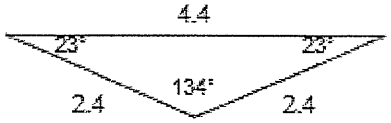
3b) find x:



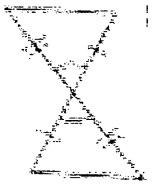
4. Classify the triangle by the angle AND by its side:
Angles: right, acute, obtuse
Sides: scalene, isosceles, equilateral



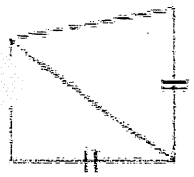
4b)



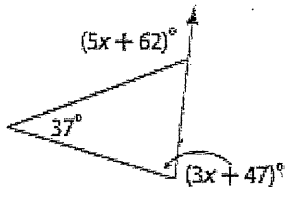
5. State if the two triangles are congruent. If they are, state how you know:



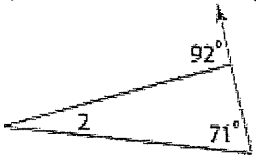
5b)



6. Find x:

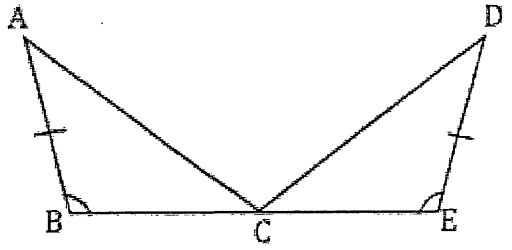


6b) Find measure of *angle* 2:



7. Fill in the spaces with the appropriate statements or reasons:

Given: C is the midpoint of $\overline{BE}$, $\angle B \cong \angle E$, and $\overline{AB} \cong \overline{DE}$

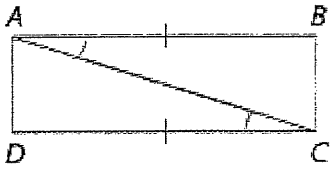


Prove: $\triangle ABC \cong \triangle DEC$

Statements	Reasons
1. $\angle B \cong \angle E$	1.
2. $\overline{AB} \cong \overline{DE}$	2.
3.	3. Given
4.	4. Midpoint
5. $\triangle ABC \cong \triangle DEC$	5. SAS

8.

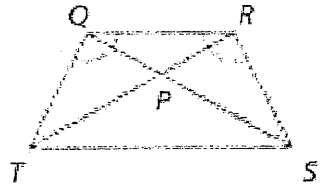
Given: $\overline{BA} \cong \overline{DC}$, $\angle BAC \cong \angle DCA$
Prove: $\overline{BC} \cong \overline{DA}$



Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.

9.

Given: $\triangle TPQ \cong \triangle SPR$
$\angle TQR \cong \angle SRQ$
Prove: $\triangle TQR \cong \triangle SRQ$



Geometry 4.1-4.4 Triangle Congruence Quiz Review

Name_____ Key

Show all work for full credit:

1. Solve for x

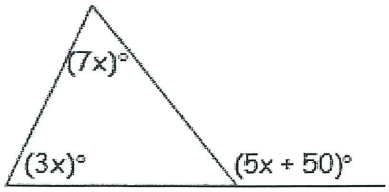
$5x+25+125=180$

$5x+150=180$

$5x=30$

$x=6$

2. Solve for x



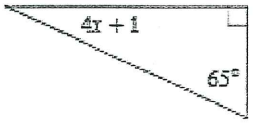
$5x+50=3x+7x$

$5x+50=10x$

$50=5x$

$x=10$

3. Solve for x



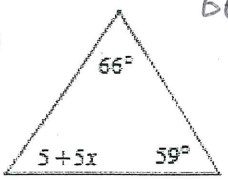
$4x+1+65+90=180$

$4x+156=180$

$4x=24$

$x=6$

3b) find x:



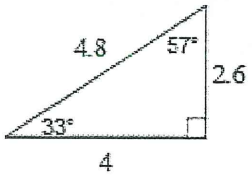
$66+59+5+5x=180$

$130+5x=180$

$5x=50$

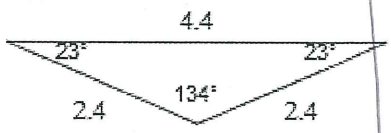
$x=10$

4. Classify the triangle by the angle AND by its side:
Angles: right, acute, obtuse
Sides: scalene, isosceles, equilateral



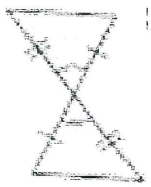
Right scalene triangle

4b)



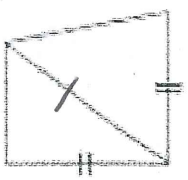
Isosceles obtuse triangle

5. State if the two triangles are congruent. If they are, state how you know:



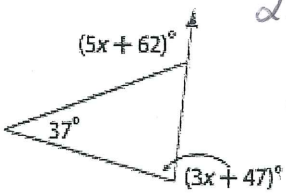
SAS

5b)



Not enough info

6. Find x:

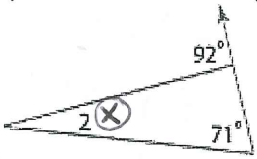


$5x+62=37+3x+47$

$2x=22$

$x=11$

6b) Find measure of *angle* 2:

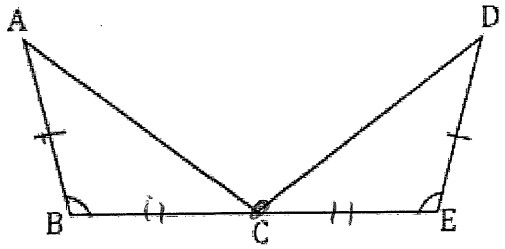


$92=x+71$

$21=x$

7. Fill in the spaces with the appropriate statements or reasons:

Given: C is the midpoint of $\overline{BE}$, $\angle B \cong \angle E$, and $\overline{AB} \cong \overline{DE}$

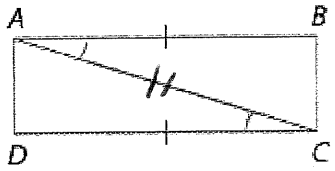


Prove: $\triangle ABC \cong \triangle DEC$

Statements	Reasons
1. $\angle B \cong \angle E$	1. Given
2. $\overline{AB} \cong \overline{DE}$	2. Given
3. C is midpt.	3. Given
4. $BC \cong CE$	4. Midpoint
5. $\triangle ABC \cong \triangle DEC$	5. SAS

8.

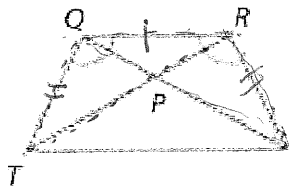
Given: $\overline{BA} \cong \overline{DC}$, $\angle BAC \cong \angle DCA$
Prove: $\overline{BC} \cong \overline{DA}$



Statement	Reason
1. $\overline{BA} \cong \overline{DC}$, $\angle BAC \cong \angle DCA$	1. Given
2. $\overline{AC} \cong \overline{AC}$	2. Reflexive property of congruence
3. $\triangle ACD \cong \triangle CAB$	3. SAS
4. $\overline{BC} \cong \overline{DA}$	4. CPCTC

9.

Given: $\triangle TPQ \cong \triangle SPR$
$\angle TQR \cong \angle SRQ$
Prove: $\triangle TQR \cong \triangle SRQ$



Statement	Reason
1) $\triangle TPQ \cong \triangle SPR$, $\angle TQR \cong \angle SRQ$	1) Given
2) $QR \cong QR$	2) Reflexive property of congruence
3) $QT \cong SR$	3) CPCTC
4) $\triangle TQR \cong \triangle SRQ$	4) SAS