Unit 5 Triangles Practice Test 2
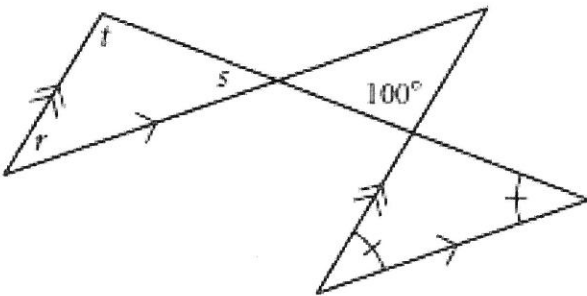
1) Can you construct the following triangles? If so, sketch an example.

a. Equilateral Obtuse   b. Acute Right   c. Isosceles Equilateral   d. Right Scalene
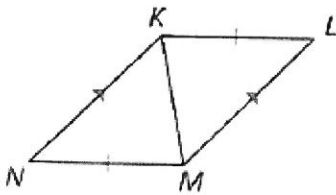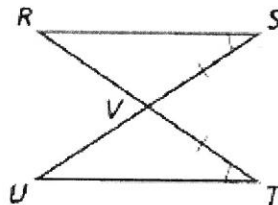
2) Find the measure of $\angle QPT$.
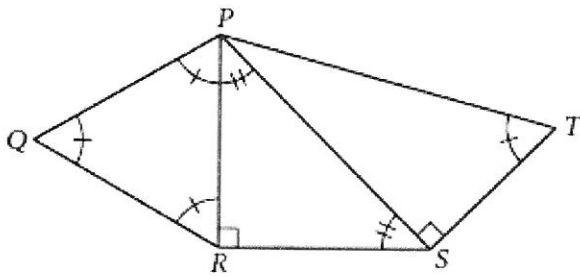
3) Find r, s, t.

4) Decide if the triangle congruent. If so, provide a shortcut that proves they are congruent. Then write a congruence statement.
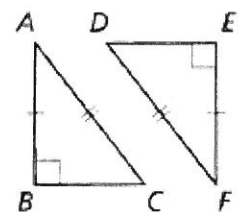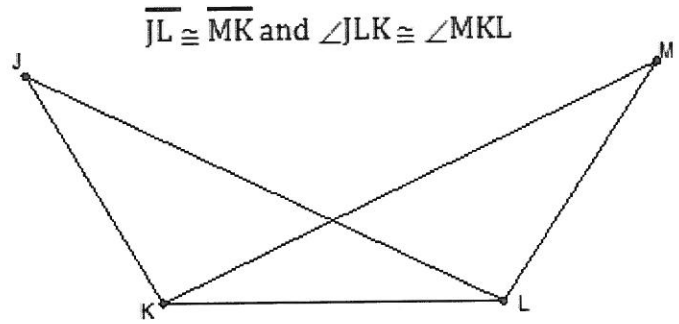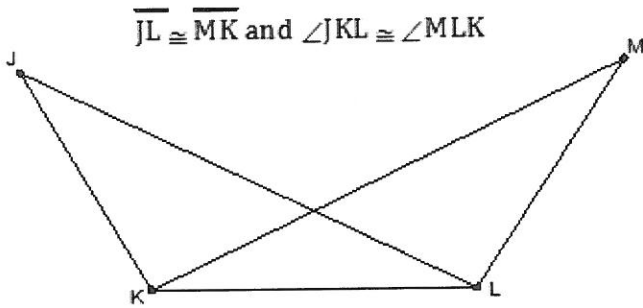
ΔKLM and ΔMNK

$\triangle RSV, \triangle UTV$

$\triangle ABC, \triangle FED$

$\overline{JL} \cong \overline{MK}$ and $\angle JKL \cong \angle MLK$

$\overline{JL} \cong \overline{MK}$ and $\angle JLK \cong \angle MKL$
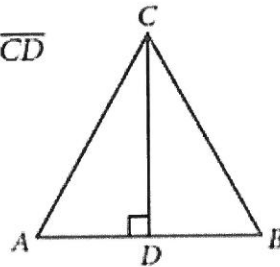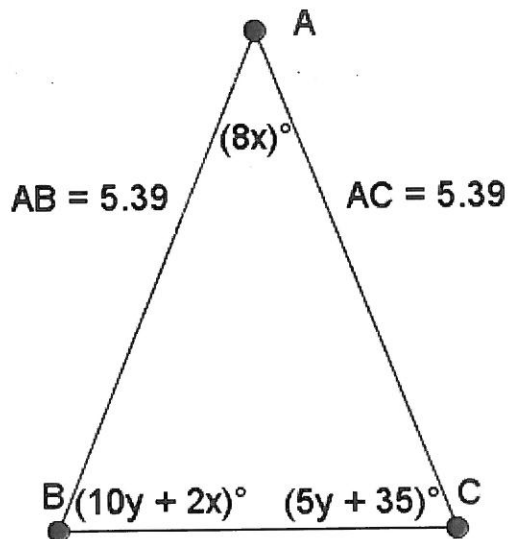
5) Prove the following.

Given: Isosceles $\triangle ABC$ with $\overline{AC} \cong \overline{BC}$ and altitude $\overline{CD}$

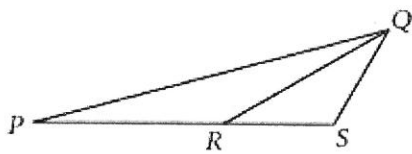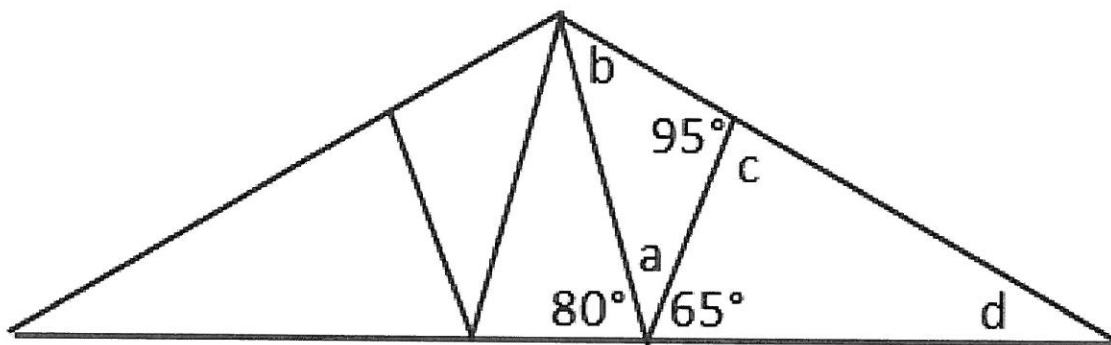**Show:** $\overline{CD}$ is a median

6) Find x and y.

$(8x)^\circ$

$AB = 5.39$

$AC = 5.39$

$B(10y + 2x)^\circ$ $(5y + 35)^\circ C$
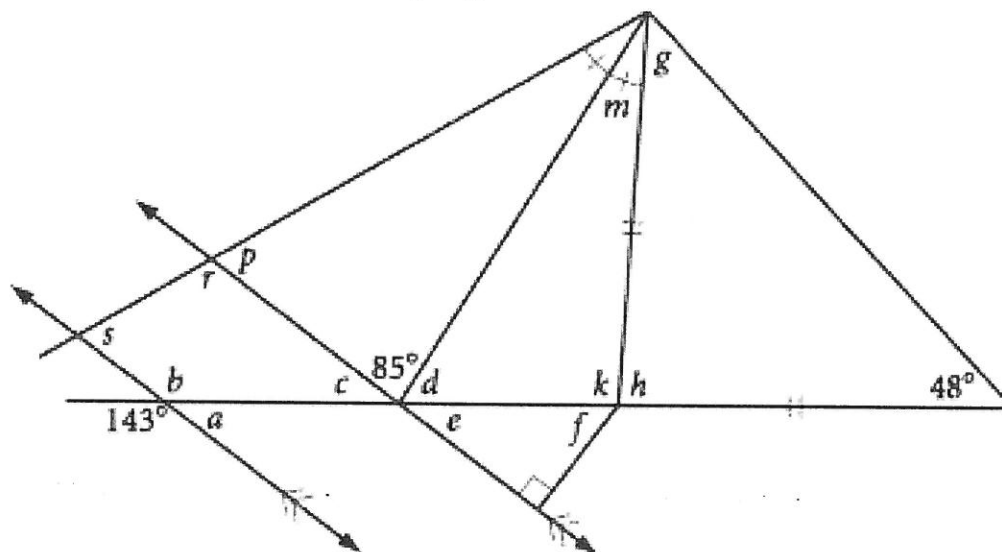
7) $PR = QR$ and $QS = RS$.
   If $m\angle RSQ = 120°$, what is
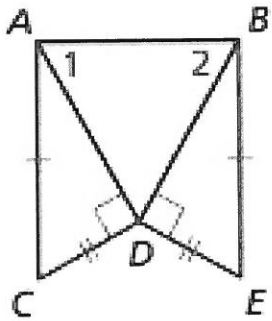 $m\angle QPR$?

8) Find the measures of angles a, b, c, d.
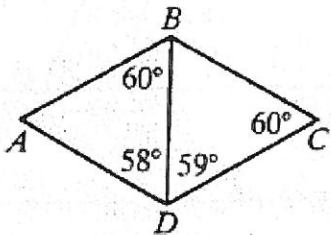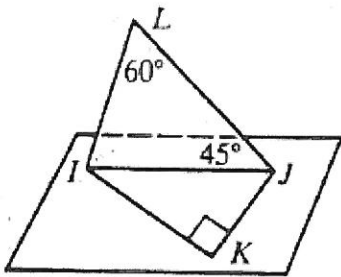
9) Find the measures of the missing angles.

10) Find the range of possible lengths for a third side of a triangle with side lengths 3 and 15.

11) Prove angles 1 and 2 are congruent with the given information.

A   B

1   2

D

C   E

12) Each diagram is not drawn to scale. Use the given information to order the side lengths from least to greatest.

L

60°

45° J

I

K

B

60°

60° C

A

58° 59°

D

13) Can each of the sets of side lengths construct a triangle? Yes or no.

1, 2, 3   5, 12, 13   10, 21, 10   52.1, 26.5, 25.7