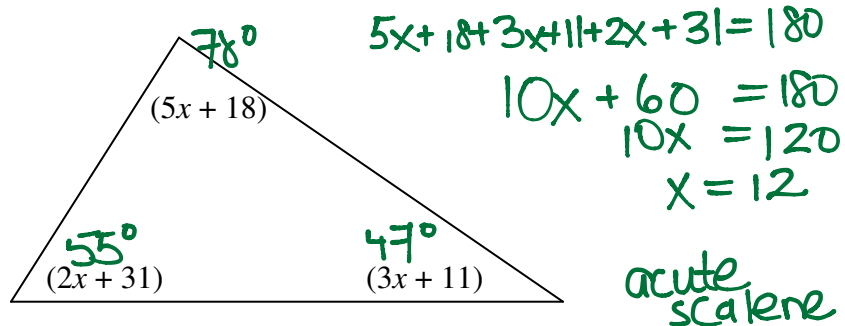


Key

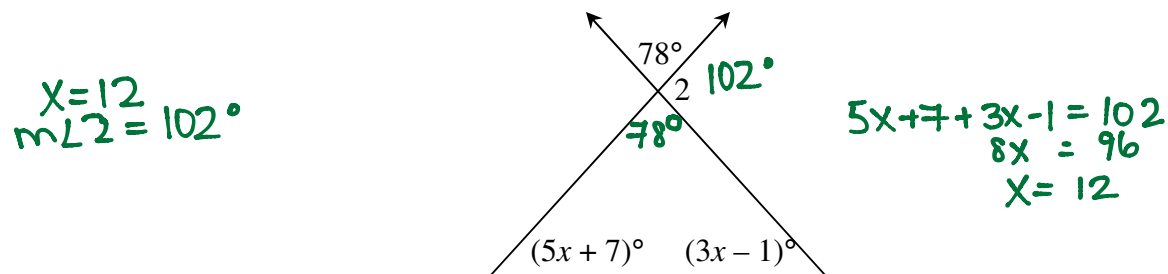
Name _____

Geometry Ch. 4 Practice Test

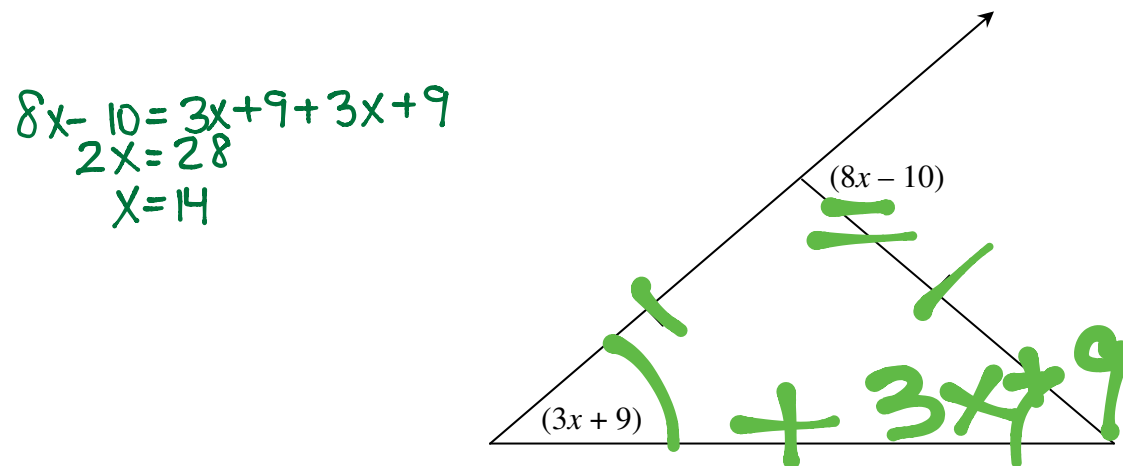
1. Find the value of x . Then classify the triangle by its angles.



2. Find x and $m\angle 2$.



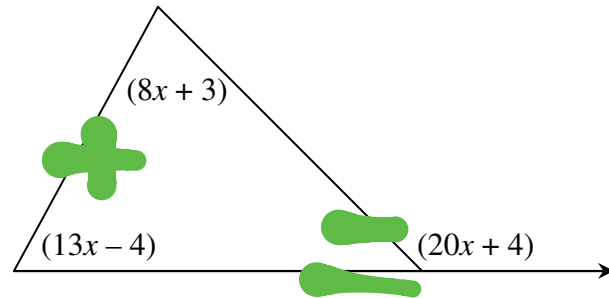
3. Find the value of x .



4. Find x .

$$20x + 4 = 8x + 3 + 13x - 4$$

$$5 = x$$



5. $\triangle QRS$ is equilateral. QR is two less than two times a number, RS is six more than the number, and QS is ten less than three times the number. Draw the triangle and label the sides. Find all three side lengths.

$$QR = 2x - 2$$

$$RS = x + 6$$

$$QS = 3x - 10$$

$$QR = RS$$

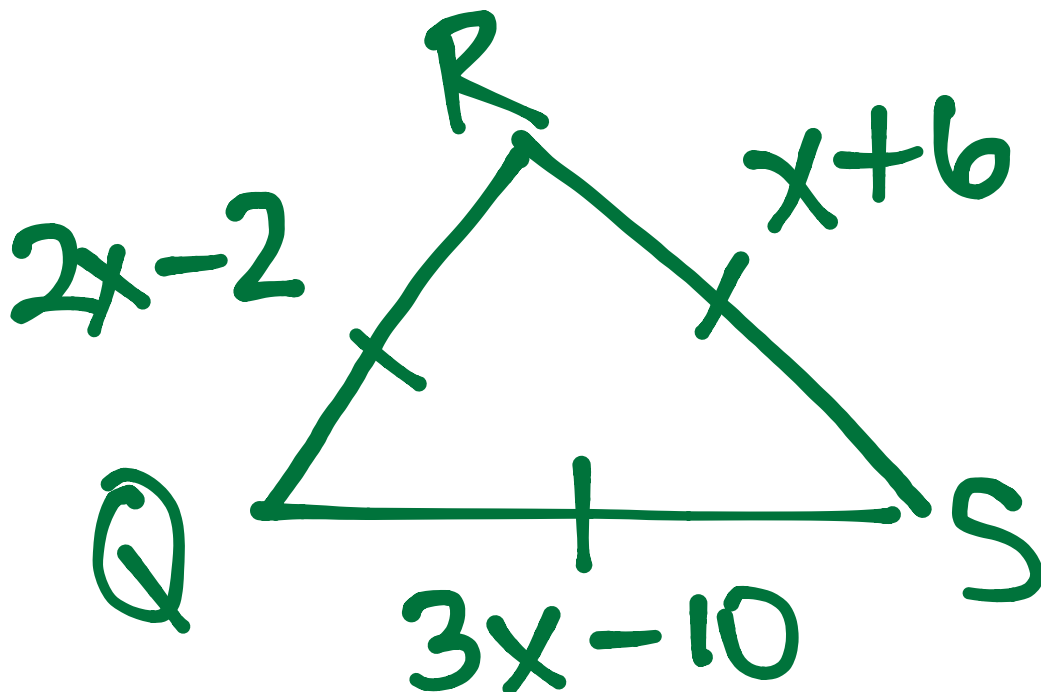
$$2x - 2 = x + 6$$

$$x = 8$$

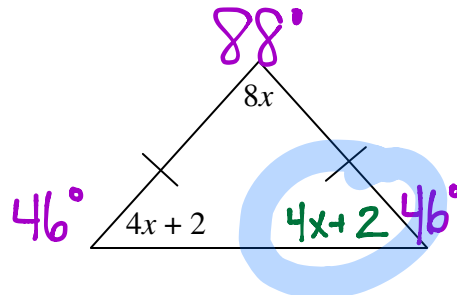
$$QR = 2x - 2 = 14$$

$$RS = 14$$

$$QS = 14$$



6. Find x and the measure of all three angles.

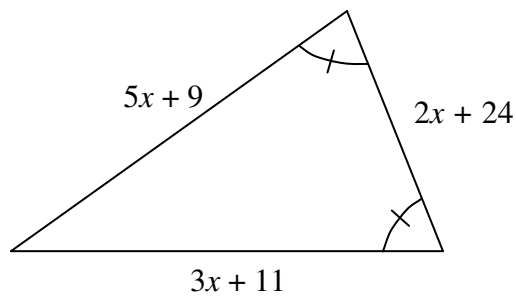


$$\begin{aligned}
 8x + 4x + 2 + 4x + 2 &= 180 \\
 16x + 4 &= 180 \\
 16x &= 176 \\
 x &= 11
 \end{aligned}$$

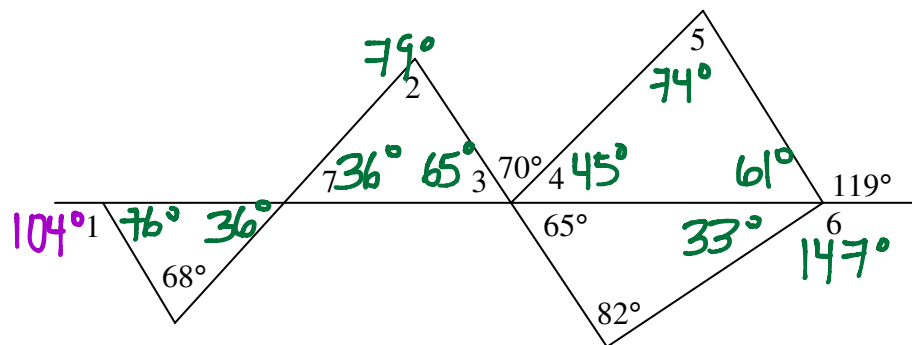
$$x = 11$$

7. Find x .

$$\begin{aligned}
 5x + 9 &= 3x + 11 \\
 2x &= 2 \\
 x &= 1
 \end{aligned}$$



For problems 8-13, use the following figure to find the given measures if $m\angle 1 = 104^\circ$



8. $m\angle 2 = 79^\circ$

9. $m\angle 3 = 65^\circ$

10. $m\angle 4 = 45^\circ$

11. $m\angle 5 = 74^\circ$

12. $m\angle 6 = 147^\circ$

13. $m\angle 7 = 36^\circ$