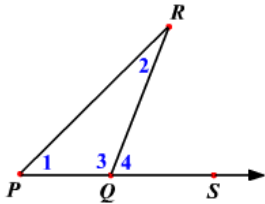


## Angles of a Triangle (Exterior angle Theorem)

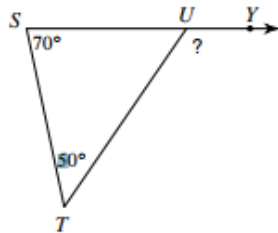
- The sum of the angles in the interior of a triangle is equal to 180 degrees.
- The measure of an exterior angle is equal to the sum of its remote interior angles.



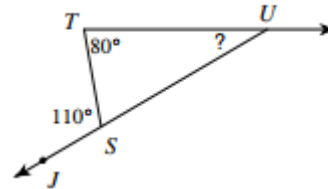
$$m\angle 4 = m\angle 1 + m\angle 2$$

For #1-8 find the measure of the unknown (?) angle. Use the **exterior angle theorem** for triangles.

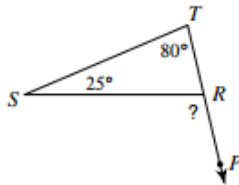
1.



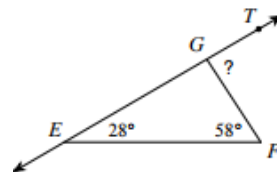
5.



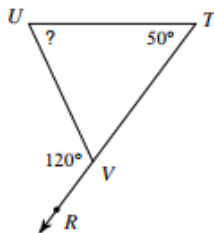
2.



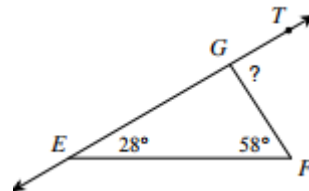
6.



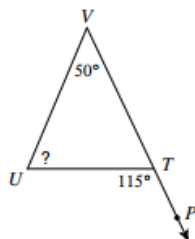
3.



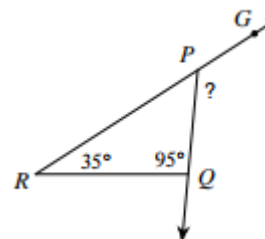
7.



4.

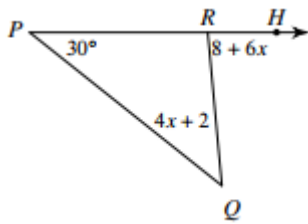


8.

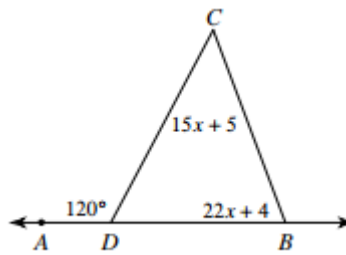


For #9-12 solve for  $x$ . Use the **exterior angle theorem** for triangles.

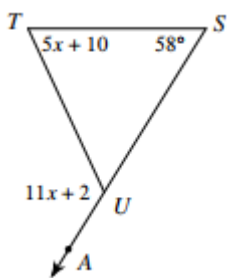
9.



12.

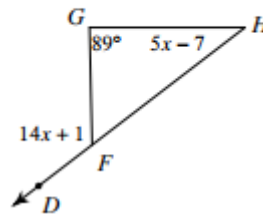


10.

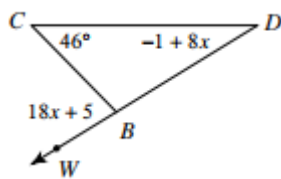


13.

Find  $m\angle H$ .



11.



14.

Find  $m\angle S$ .

