

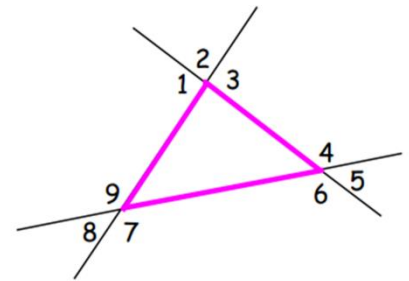
Section 8.4 Exterior Angles

Name: _____ Hr: _____

Exterior Angle Theorem: The exterior angle is equal to the sum of the two remote interior angles.

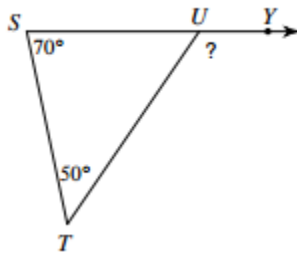
1. Which of the angles in the figure are not exterior angles of the triangle?

2. Which of the angles are the exterior angles of the triangle?
(Hint: there are six of them.)

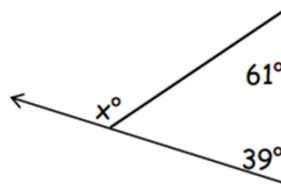


Solve for the variable or the missing angle in the following problems:

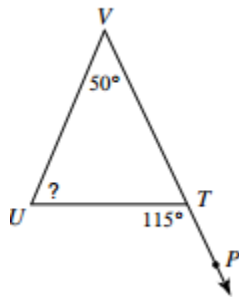
1.



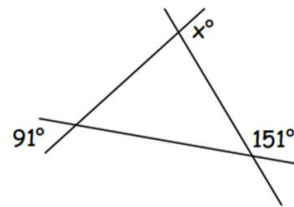
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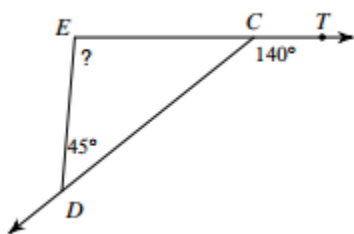
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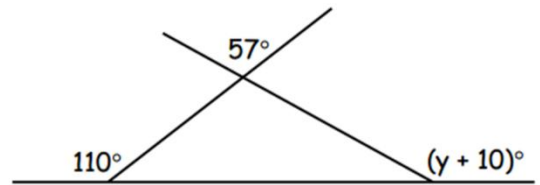
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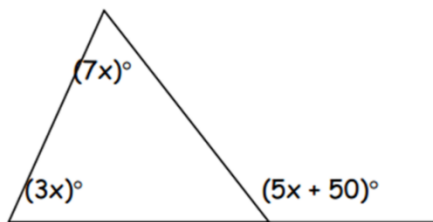
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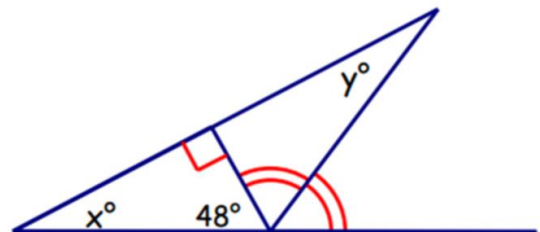
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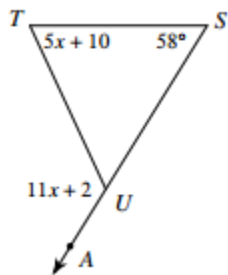
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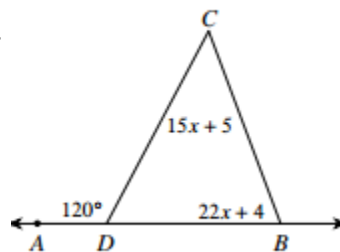
8.



9.



10.

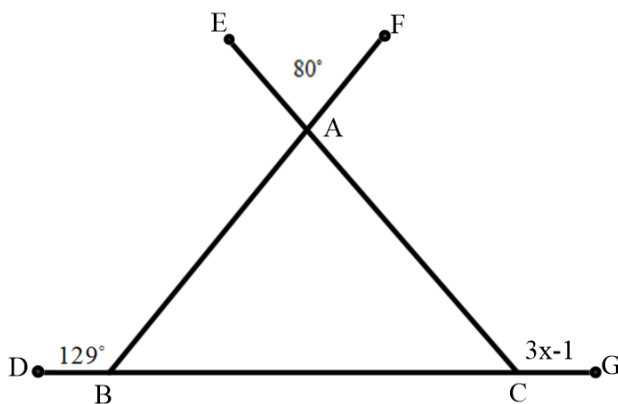


11. Given: $m\angle DBA = 129^\circ$

$$m\angle EAF = 80^\circ$$

$$m\angle ACG = 3x - 1$$

Prove: $x = 44$



Statement	Reason
1. $m\angle DBA = 129^\circ$	1.
2. $m\angle DBA + m\angle ABC = 180^\circ$	2.
3. $129^\circ + m\angle ABC = 180^\circ$	3.
4. $m\angle ABC = 51^\circ$	4.
5. $m\angle EAF = 80^\circ$	5.
6. $m\angle CAB = 80^\circ$	6.
7. $m\angle ACG = 3x - 1$	7.
8. $m\angle ABC + m\angle CAB = m\angle ACG$	8.
9. $3x - 1 = 51^\circ + 80^\circ$	9.
10. $3x - 1 = 131^\circ$	10.
11. $3x = 132^\circ$	11.
12. $x = 44$	12.