

Geometry – DAY 3.3
Exterior Angles

Name: Key
 Date: _____

WARM-UP: Solve for x.

1.

$70 + 27 + x + 90 = 180$
 $x + 187 = 180$
 $x = -7$

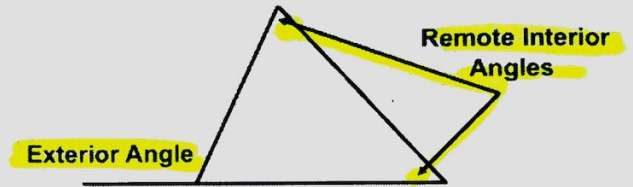
2.

$75 + 75 + x + 30 = 180$
 $150 + x + 30 = 180$
 $x + 180 = 180$
 $x = 0$

Notes:

EXTERIOR ANGLE THEOREM

The measure of an exterior angle of a triangle is equal to the sum of the measures of the two remote interior angles.



Find the value of x in each figure.

1. $x = 55^\circ$

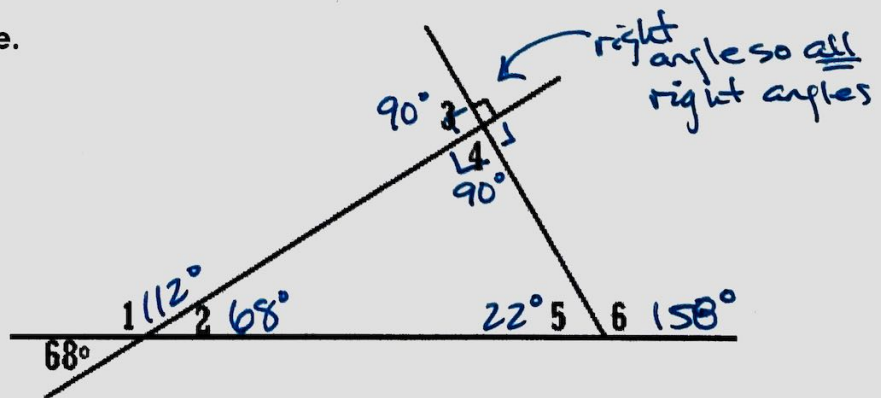
$21 + 34 = 55^\circ$

2. $x = 23$

$2x + 3 + 51 = 100$
 $2x + 54 = 100$
 $2x = 46$
 $x = 23$

Find the value of each numbered angle.

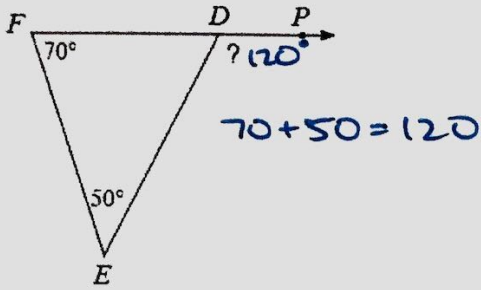
3. $m\angle 1 = 112^\circ$
4. $m\angle 2 = 68^\circ$
5. $m\angle 3 = 90^\circ$
6. $m\angle 4 = 90^\circ$
7. $m\angle 5 = 22^\circ$
8. $m\angle 6 = 158^\circ$



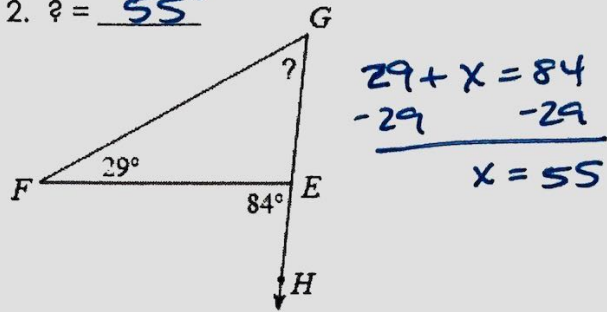
CLASSWORK PRACTICE

Find the missing angle.

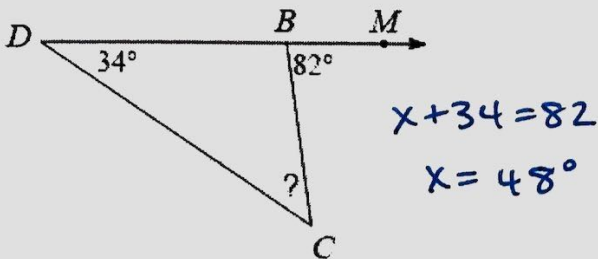
1. $\angle = \underline{120^\circ}$



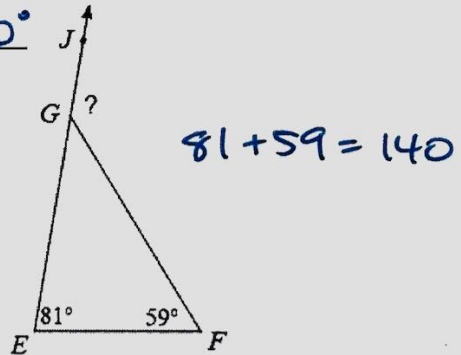
2. $\angle = \underline{55^\circ}$



3. $\angle = \underline{48^\circ}$

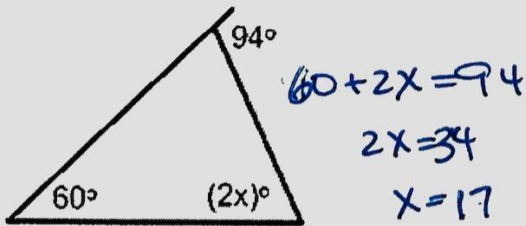


4. $\angle = \underline{140^\circ}$

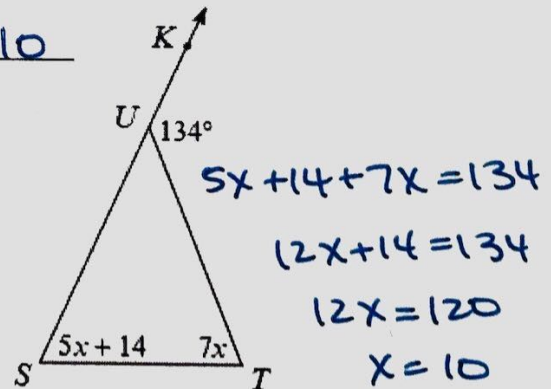


Solve for x.

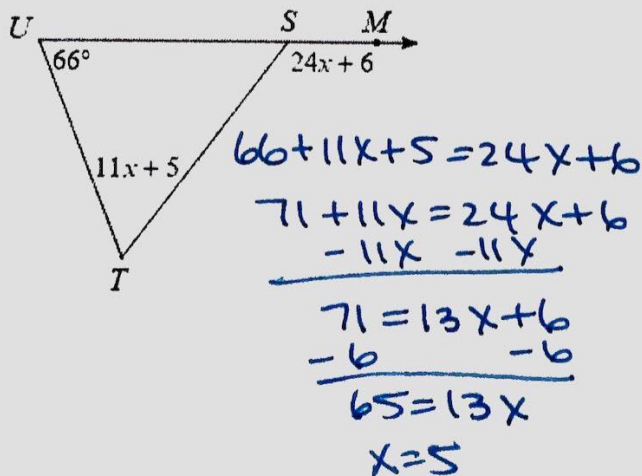
5. $x = \underline{17}$



6. $x = \underline{10}$



7. $x = \underline{5}$



8. $x = \underline{4}$

