

7.)

① linear pairs are supp.  
 ② vertical  $\angle$ 's are = in meas.  
 ③ If 2 // lines are cut by a trans. then alt. int.  $\angle$ 's are = in meas.  
 ④ Angle sum postulate

$I = 63 + 51$   
 $I = 114^\circ$

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Geometry GC - Unit 1  
 Lesson 4: Unknown Angles - Angles in a Triangle  
 M1 L8  
 Homework:

**HW Answers 1.3**

8.)

If two parallel lines are cut by a transversal, then same side interior angles are supplementary.  
 Angle sum postulate  
 If two parallel lines are cut by a transversal, then same alternate interior angles are equal in measure.

1.) Solve for the missing labeled variables.  
 2.) Solve for x. (Hint: Draw an auxiliary line!)

$m\angle d = 50^\circ$   
 $m\angle e = 50^\circ$

$m\angle x = 37^\circ$

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In each figure, determine the measures of the unknown (labeled) angles.

1.)

$180 - 78 \rightarrow 102$   
 $42 + 102 + a = 180$   
 $144 + a = 180$   
 $a = 36$

\*  $72 + a = 78$

exterior  $\angle$  theorem

2 non-adjacent  $\angle$ 's sum to the exterior  $\angle$   
 $a + b = d$

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2.)

Isosceles  $\Delta$

$68 + 68 = b$   
 $136^\circ = b$

ext  $\angle$  theorem

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3.)

$g = 57 + 86 = 143$

- alt int  $\angle$ 's  $\cong$
- linear pairs are supplementary
- Ext  $\angle$  theorem

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4.)

$46 + 90 + a = 180$   
 $a = 44$   
 $90 + 44 = 134$   
 $95 + 39 \rightarrow 134$

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