

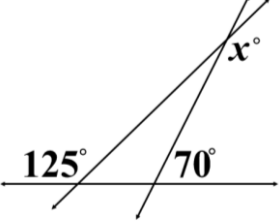
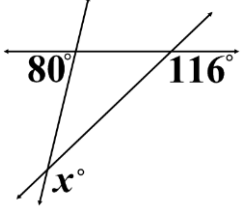
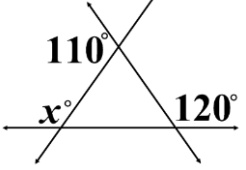
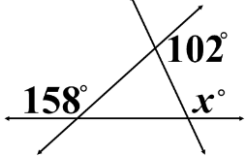
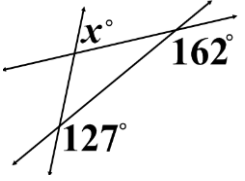
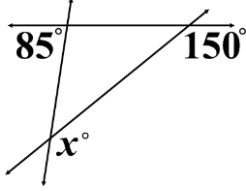
Unit 4 Review – Angle Relationships

Step 1: Subtract each exterior angle from 180 in order to determine the interior angles.

Step 2: Add the two interior angles (use the exterior angle theorem).

Step 3: (If you don't know the ext. angle theorem, use triangle sum) Subtract the sum of the interior angles from 180.

Step 4: Subtract the third interior angle from 180.

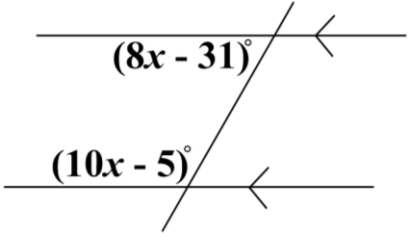
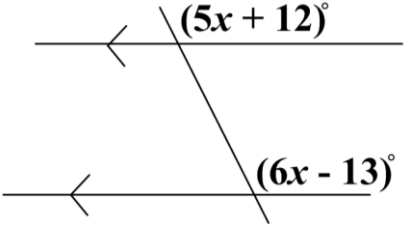
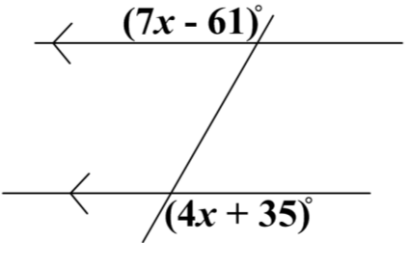
<p>1.</p> 	<p>2.</p> 	<p>3.</p> 
<p>4.</p> 	<p>5.</p> 	<p>6.</p> 

Step 1: Identify the angle pair, or determine if the two angles are the same (both obtuse or both acute) or different (one obtuse & one acute)

Step 2: Set up the relationship between the angles - if they're congruent/the same, set them equal; if they're supplementary/different, add them to equal 180.

Step 3: Simplify, if needed, and solve for x.

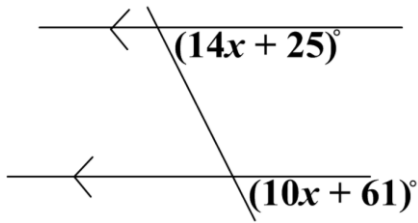
Step 4: Substitute the value of x into each angle & simplify.

<p>7. Determine the value of x, and use it to evaluate each given angle measure.</p> 	<p>8. Determine the value of x, and use it to evaluate each given angle measure.</p> 	<p>9. Determine the value of x, and use it to evaluate each given angle measure.</p> 
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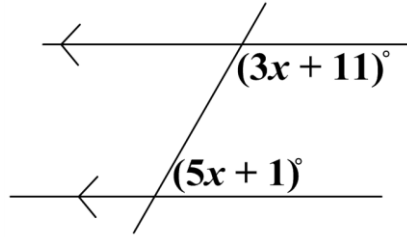
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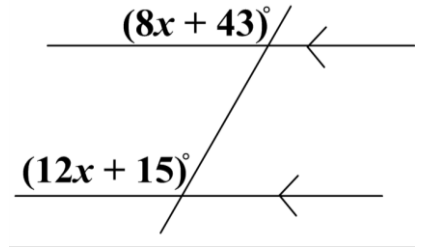
10. Determine the value of x , and use it to evaluate each given angle measure.



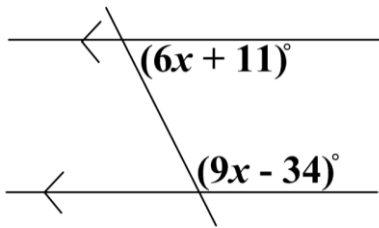
11. Determine the value of x , and use it to evaluate each given angle measure.



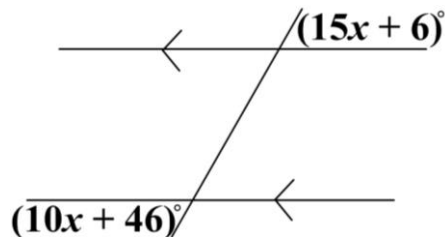
12. Determine the value of x , and use it to evaluate each given angle measure.



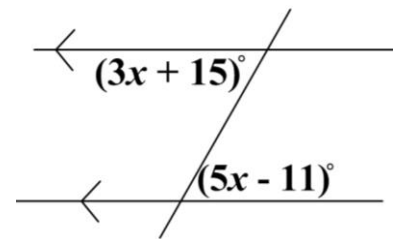
13. Determine the value of x , and use it to evaluate each given angle measure.



14. Determine the value of x , and use it to evaluate each given angle measure.



15. Determine the value of x , and use it to evaluate each given angle measure.



Unit 4 Review - Angle Relationships Answers

1. $x = 165^\circ$	2. $x = 164^\circ$	3. $x = 130^\circ$
4. $x = 100^\circ$	5. $x = 71^\circ$	6. $x = 125^\circ$
7. $x = 12$ $(8x - 31)^\circ = 65^\circ$ $(10x - 5)^\circ = 115^\circ$	8. $x = 25$ $(5x + 12)^\circ = 137^\circ$ $(6x - 13)^\circ = 137^\circ$	9. $x = 32$ $(7x - 61)^\circ = 163^\circ$ $(4x + 35)^\circ = 163^\circ$
10. $x = 9$ $(14x + 25)^\circ = 151^\circ$ $(10x + 61)^\circ = 151^\circ$	11. $x = 21$ $(3x + 11)^\circ = 74^\circ$ $(5x + 1)^\circ = 106^\circ$	12. $x = 7$ $(8x + 43)^\circ = 99^\circ$ $(12x + 15)^\circ = 99^\circ$
13. $x = 15$ $(6x + 11)^\circ = 101^\circ$ $(9x - 34)^\circ = 101^\circ$	14. $x = 8$ $(15x + 6)^\circ = 126^\circ$ $(10x + 46)^\circ = 126^\circ$	15. $x = 13$ $(3x + 15)^\circ = 54^\circ$ $(5x - 11)^\circ = 54^\circ$