

Jadwin-Geometry-8th Period-Off Site Learning Packet Day 3

Using the following definitions and the examples given along with the corresponding angles postulate, we can label angles and also calculate angle measures.

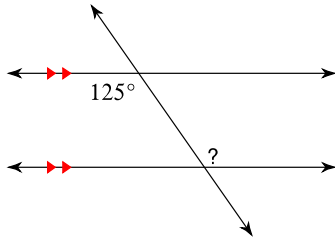
Angle Pairs Formed by a Transversal

TERM	EXAMPLE
A transversal is a line that intersects two coplanar lines at two different points. The transversal t and the other two lines r and s form eight angles.	
Corresponding angles lie on the same side of the transversal t , on the same sides of lines r and s .	$\angle 1$ and $\angle 5$
Alternate interior angles are nonadjacent angles that lie on opposite sides of the transversal t , between lines r and s .	$\angle 3$ and $\angle 6$
Alternate exterior angles lie on opposite sides of the transversal t , outside lines r and s .	$\angle 1$ and $\angle 8$
Same-side interior angles or <i>consecutive interior angles</i> lie on the same side of the transversal t , between lines r and s .	$\angle 3$ and $\angle 5$

Postulate 3-2-1 Corresponding Angles Postulate

THEOREM	HYPOTHESIS	CONCLUSION
If two parallel lines are cut by a transversal, then the pairs of corresponding angles are congruent.		$\angle 1 \cong \angle 5$ $\angle 2 \cong \angle 4$ $\angle 5 \cong \angle 7$ $\angle 6 \cong \angle 8$

Using the corresponding angles postulate calculate the angle measure:

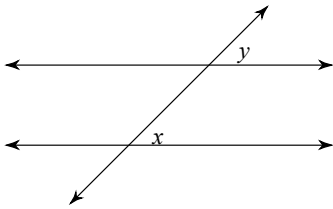


The angle across from the ? is equal to the measure of the angle given using the corresponding angles postulate and since the angle across from the ? makes a vertical pair and their measures are equal the ? is equal to 125° .

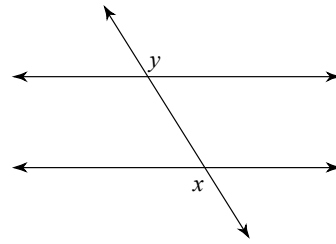
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Identify each pair of angles as corresponding, alternate interior, alternate exterior, or same-side interior angles:

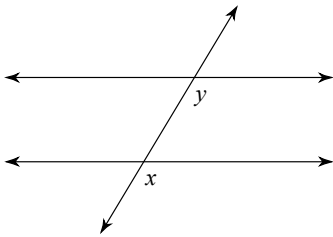
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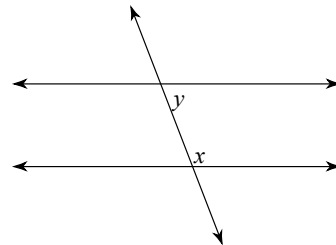
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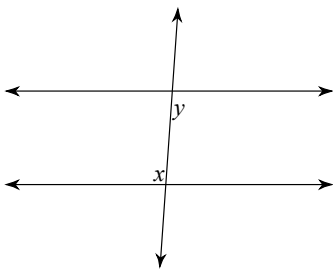
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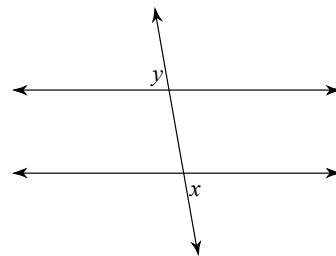
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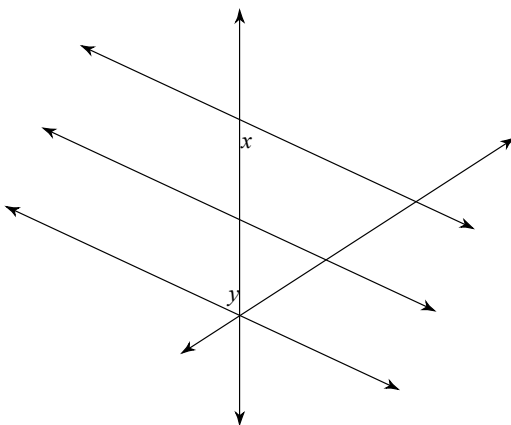
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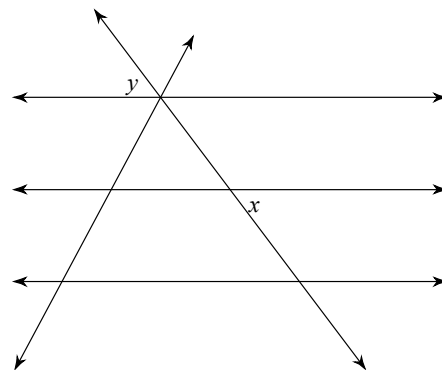
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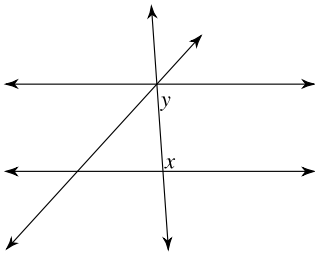
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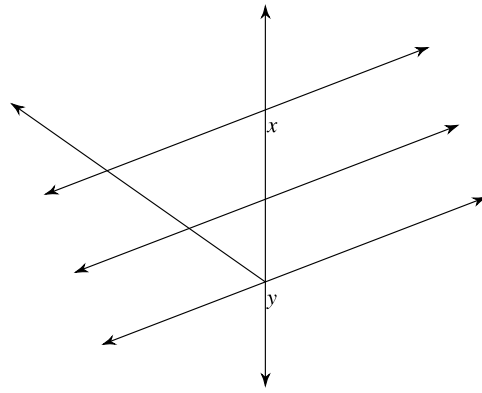
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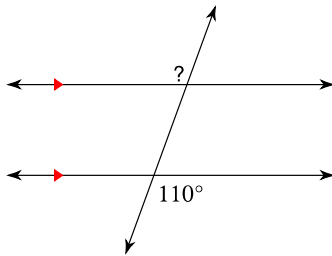


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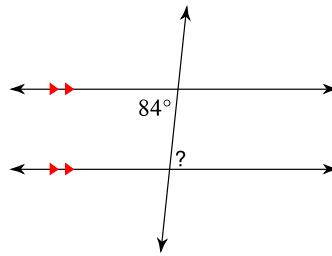


Find the measure of each angle indicated:

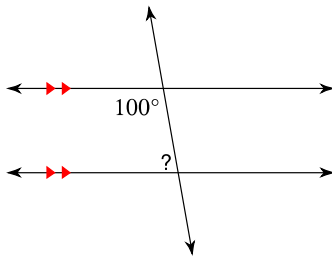
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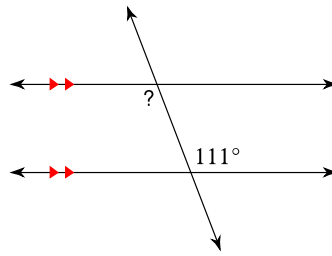
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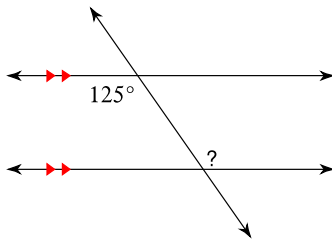
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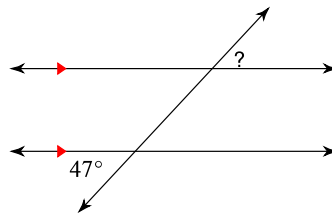
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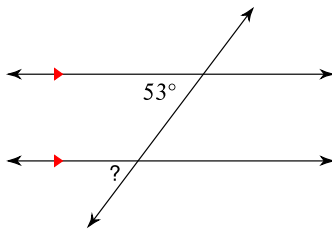
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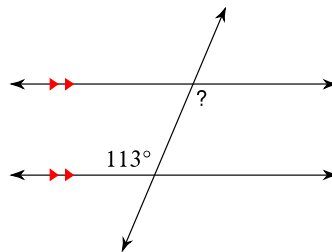
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17)

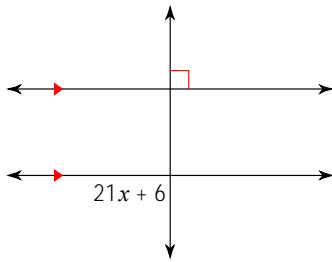


18)

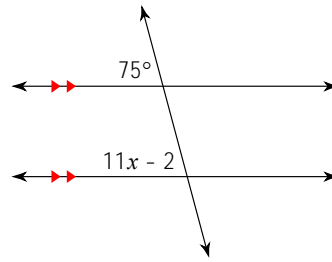


Solve the following for x:

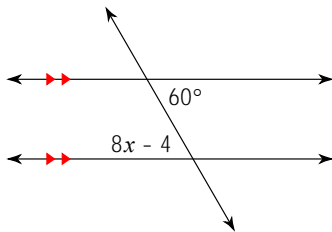
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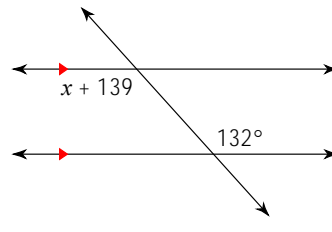
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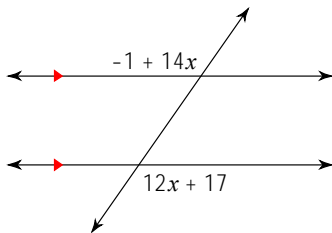
21)



22)



23)



24)

