Chapter 3 section 2  Use Parallel lines and Transversals

Objective: To use angles formed by parallel lines and transversals, to determine angle measures, and setup algebraic equations to determine measures.

**Postulate 15  Corresponding Angles Postulate**
If two parallel lines are cut by a transversal, then the pairs of corresponding angles are congruent.

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**Alternate Interior Angles Theorem**  If two parallel lines are cut by a transversal, then the pairs of alternate interior angles are congruent. (p. 155)

**Alternate Exterior Angles Theorem**  If two parallel lines are cut by a transversal, then the pairs of alternate exterior angles are congruent. (p. 155)

**Consecutive Interior Angles Theorem**  If two parallel lines are cut by a transversal, then the pairs of consecutive interior angles are supplementary. (p. 155)

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**Find** $m\angle 1$ and $m\angle 2$. *Explain your reasoning.*

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Use magic link button to reveal answers.
Find the values of $x$ and $y$.

\begin{align*}
(100 - y)^\circ \\
81^\circ \\
9x^\circ 
\end{align*}

Find the values of $x$ and $y$.

\begin{align*}
(13y + 5)^\circ \\
3x^\circ \\
(5y - 5)^\circ 
\end{align*}

Find the values of $x$ and $y$.

\begin{align*}
(6y + 1)^\circ \\
(3x - 10)^\circ \\
(7y - 18)^\circ 
\end{align*}

Find the values of $x$ and $y$.

\begin{align*}
(2x - y)^\circ \\
(2x + 15)^\circ \\
50^\circ \\
(2x + y)^\circ \\
40^\circ 
\end{align*}
Find the values of $x$ and $y$.

$150^\circ$
$(5x - y)^\circ$
$(5x + y)^\circ$
$130^\circ$

Any questions or clarification?