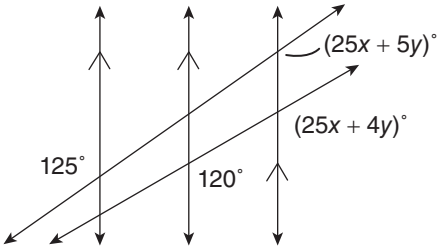
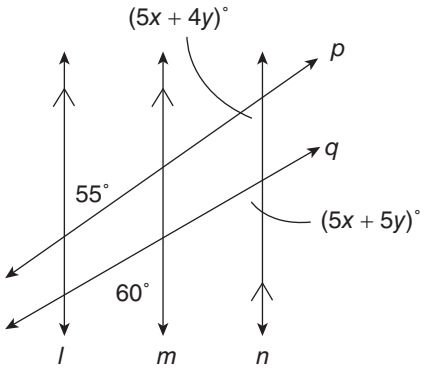
Parallel Lines and Angles
Ticket Out the Door

1.–4. Find x and y in the diagrams.

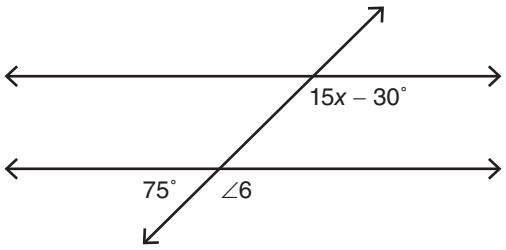




$x =$ _____ $y =$ _____ $x =$ _____ $y =$ _____

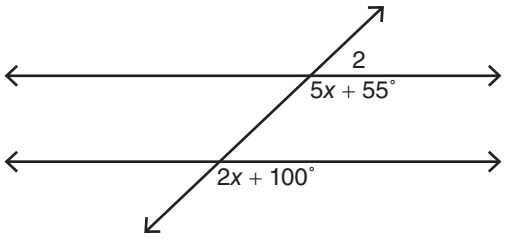
5. The following diagram shows parallel lines cut by a transversal. What is the value of x?

$x =$ _____



6. The following diagram shows parallel lines cut by a transversal. What is the value of $\angle 2$?

$\angle 2 =$ _____



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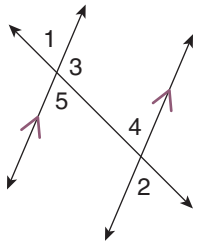
7. Write which theorem or postulate that is related to the measures of the angles in each pair.

   Then find the angle measures.



$m\angle 1 = (7x + 15)°$, $m\angle 2 = (10x - 9)°$ _____

$m\angle 1$ = _____, $m\angle 2$ = _____

$m\angle 3 = (23x + 11)°$, $m\angle 4 = (14x - 21)°$ _____

$m\angle 3$ = _____, $m\angle 4$ = _____

$m\angle 4 = (37x + 15)°$, $m\angle 2 = (44x - 29)°$ _____

$m\angle 4$ = _____, $m\angle 2$ = _____

$m\angle 1 = (6x + 24)°$, $m\angle 2 = (17x - 9)°$ _____

$m\angle 1$ = _____, $m\angle 2$ = _____