Interior Angles on the Same Side of the Transversal

Interior angles on the same side of the transversal formed by a transversal and parallel lines are supplementary. When traced they look like a C, forward or backward. Example:

If line $AB \parallel CD$, then in all cases below $\angle 1$ and $\angle 2$ are interior angles on the same side of the transversal and add up to 180 degrees.

Practice:

1.) In the accompanying diagram line $l$ is parallel to line $m$ and they are intersected by transversal $t$. If $m \angle 2 = 60$ find $m \angle 2$.

2.) In the diagram below, $AB \parallel CD$. If $m \angle 1 = 3x + 20$ and $m \angle 2 = 2x + 30$, find the value of $x$.

3.) In the accompanying diagram, line $a$ is parallel to line $b$ and they are intersected by transversal $c$. If $m \angle 1 = 4x - 10$ and $m \angle 2 = 110$, find the value of $x$.

4.) In the accompanying diagram, $AB \parallel CD$ and intersects transversal $GH$ at $E$ and $F$ respectively. If $m \angle AEF = 124$ and $m \angle EFC = 2x + 20$, find the value of $x$.

5.) In the accompanying diagram, $AB \parallel CD$ and transversal $EF$ intersects $AB$ at $G$ and $CD$ at $H$. If $m \angle 1 = 4x + 50$ and $m \angle 2 = x + 30$ find the value of $x$.

6.) In the accompanying diagram, $AB \parallel CD$ and intersects transversal $GH$ at points $E$ and $F$ respectively. Name two pairs of interior angles on the same side of the transversal.