Name _____ Period_____ Date_____

Using Algebra to Find Angle Measures

(note that figures are not drawn to scale)

1._____

2._____

3._____

4._____

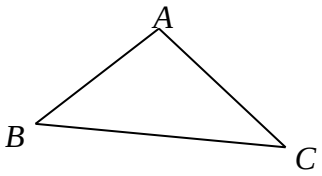
5._____

6._____

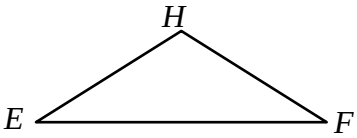
7._____

8._____

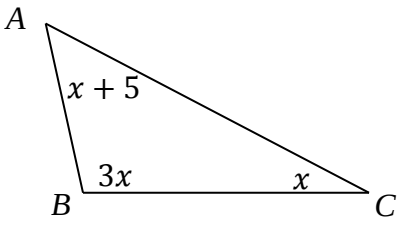
1. In ΔABC, $m\angle A = 3x$, $\angle B = 2x+10$, *and* $m\angle C = 20$. What is the measure of $\angle A$?



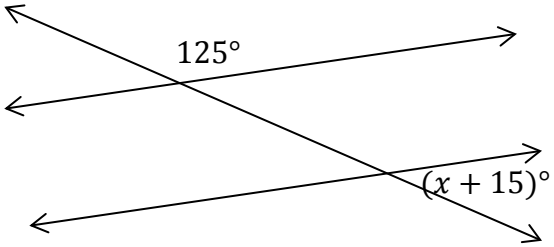
2. If the $m\angle EFH = 39°$ and the $m\angle EHF = 5x + 2$, find the value of *x* so $m\angle EFH = m\angle HEF$.



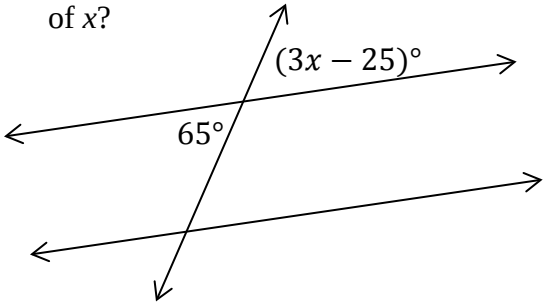
3. In the figure below, what is the measure of $\angle B$?



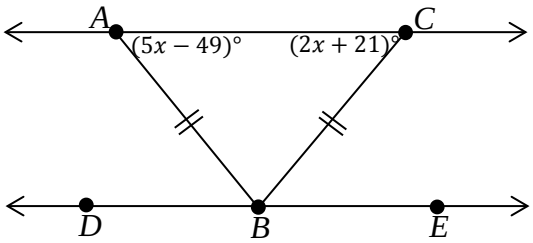
4. In the figure below, what is the value of *x*?



5. In the figure below, what is the value of *x*?



Use the following figure for questions 6 – 8. Note for pre-algebra students: angles opposite equal sides are equal.



6. Solve for *x* to find the $m\angle CAB$ *and* $m\angle ACB$.

7. What is the m∠ABC?

8. If $m\angle ABD = 47°$, what is the $m\angle CBE$?