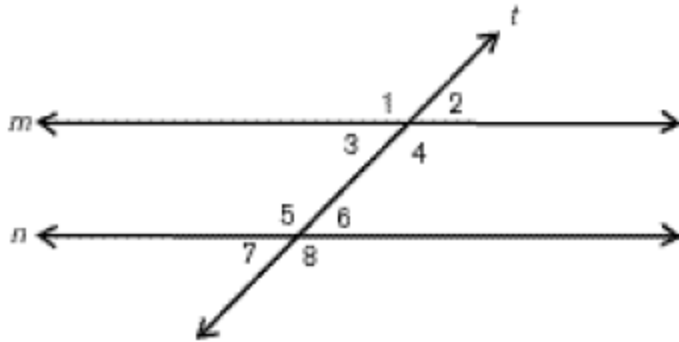


Name: _____
 Date: _____
 Class: _____

Geometry
 Unit 2
 HW 2-2

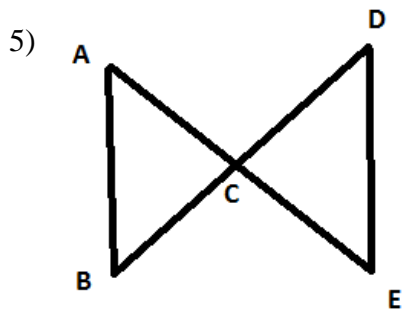


- 1) If $m\angle 7 = 57^\circ$ and $m\angle 1 = 123^\circ$ are the lines parallel? What is your reasoning?

- 2) If $m\angle 2 = 44^\circ$ and $m\angle 1 = 136^\circ$ are the lines parallel? What is your reasoning?

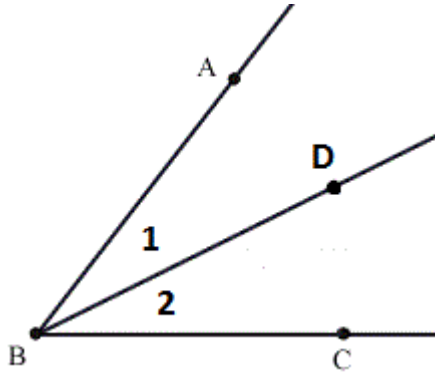
- 3) If $m\angle 1 = 10x + 25$, $m\angle 5 = 12x + 3$, and $m\angle 3 = 6x + 19$ are the lines parallel? What is your reasoning?

- 4) If $\vec{m} \parallel \vec{n}$, $m\angle 1 = 5x + 30$, and $m\angle 7 = 6x + 7$, find $m\angle 4$



If $\overline{AB} \parallel \overline{DE}$, $m\angle CDE = 6x + 5$, $m\angle BAC = 7x + 2$
 and $m\angle DEC = 8x - 8$, find $m\angle ABC$.

6)



\overline{BD} bisects $\angle ABC$

If $m\angle ABC = 9x + 17$ and $m\angle DBC = 6x + 1$
find and explain the value of x

7) Find the equation of a line that is parallel to a segment which has endpoints $(7, 2)$ and $(3, 5)$. This line passes through $(2, 1)$.

8) Find the midpoint between the following points $-(2x + 1, 4y + 2)$ and $(4x - 1, 6y - 4)$