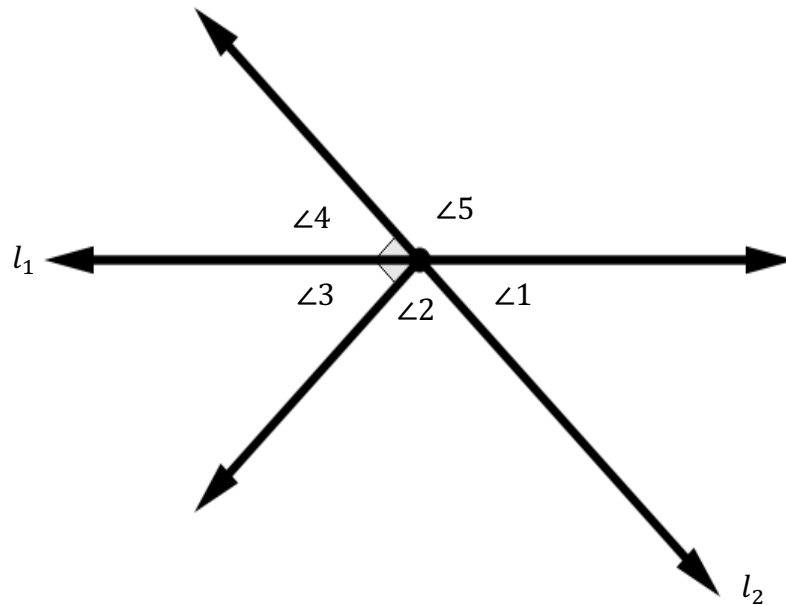


Angles
Angle Pairs – Part 1
Independent Practice

1. Consider the figure below.

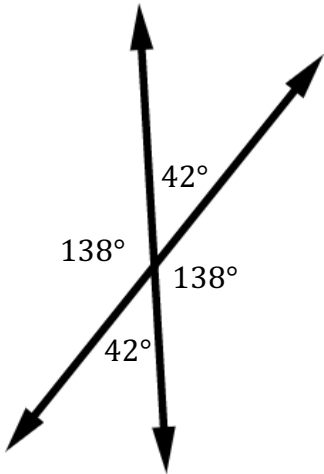


Which of the following statements are correct? Select all that apply.

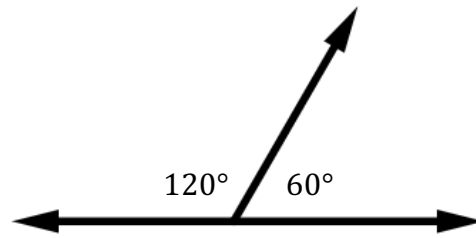
- $\angle 1$ and $\angle 4$ are adjacent angles.
- $\angle 1$ and $\angle 2$ are complementary angles.
- $\angle 3$ and $\angle 4$ are adjacent angles and complementary angles.
- $\angle 5$ is a vertical angle to the combination of $\angle 3$ and $\angle 2$.
- $\angle 1$ and $\angle 3$ are vertical angles.
- $\angle 4$ and $\angle 5$ are adjacent angles, supplementary angles, and form a linear pair.
- There is at least one angle bisector in the above graph.

2. Which of the following figures display an angle bisector?

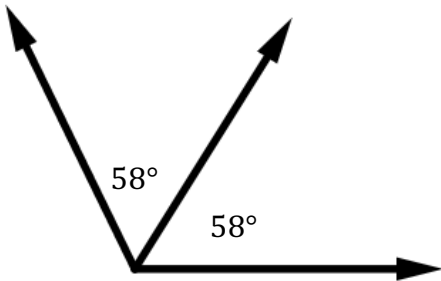
(A)



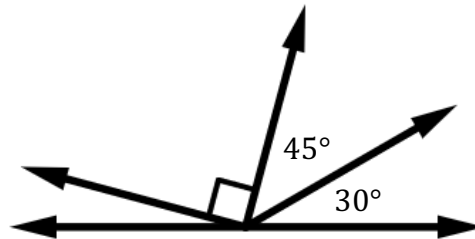
(B)



(C)



(D)



3. Suppose that $\angle MAP$ and $\angle MAC$ are linear pairs, $m\angle MAP = 7x - 13$ and $m\angle MAC = 3x + 13$.

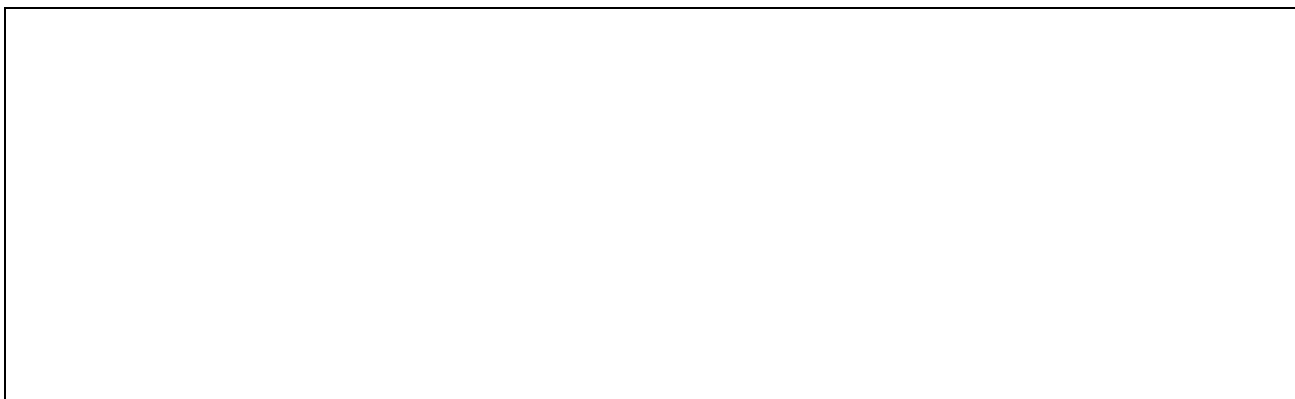
Part A: Identify the line and the rays that form $\angle MAP$ and $\angle MAC$.

Part B: Determine $m\angle MAP$.

Part C: Determine $m\angle MAC$.

4. Suppose that $\angle COP$ and $\angle TOD$ are vertical angles, $m\angle COP = 11x - 17$ and $m\angle TOD = 9x + 11$.

Part A: Construct $\angle COP$ and $\angle TOD$. [Hint: $\angle COD$ is an adjacent angle to $\angle COP$ and $\angle POT$ is an adjacent angle to $\angle TOD$.]



Part B: Determine $m\angle COD$ and $m\angle POT$.

5. Suppose that $\angle LAP$ and $\angle LAR$ are adjacent angles, $m\angle LAP = 3x + 7$, $m\angle LAR = 4(x - 4)$, and $m\angle PAR = 2(3x + 7)$.

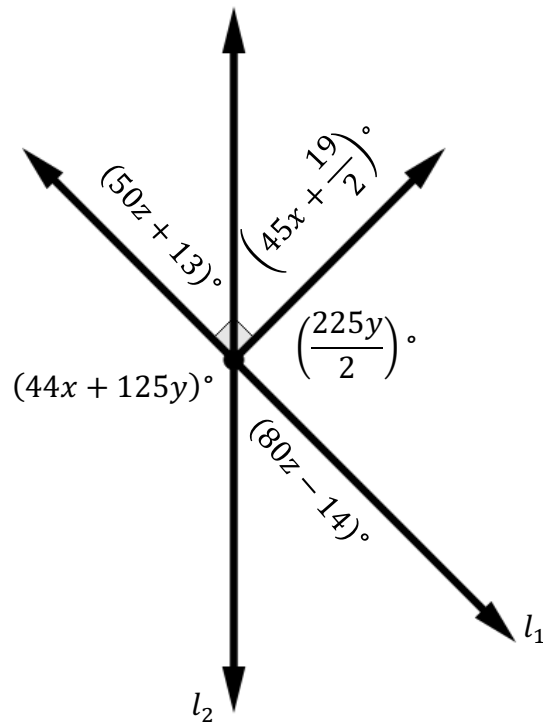
Part A: Determine $m\angle LAP$ and $m\angle LAR$.

Part B: What can you conclude about \overline{AL} ? Justify your answer.

6. Is the perpendicular bisector of a line segment also an angle bisector? Justify your answer.



7. Consider the figure below.



The angle measures are represented by algebraic expressions. Determine the values of x , y , and z .