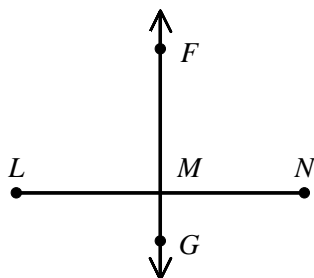
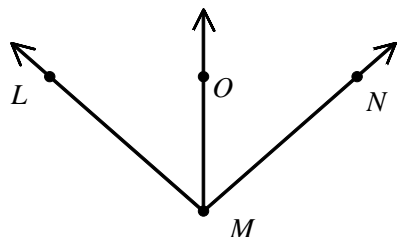


NAME: \_\_\_\_\_

1. Given:  $\overleftrightarrow{FG}$  is the perpendicular bisector of  $\overline{LN}$ . Name three things that you can conclude.

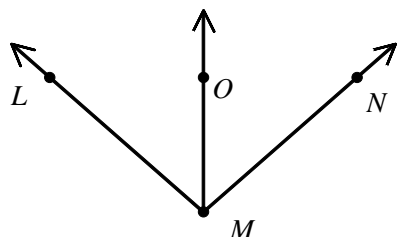


2. In the figure (not drawn to scale),  $\overrightarrow{MO}$  bisects  $\angle LMN$ ,  $m\angle LMO = 16x - 45$ , and  $m\angle NMO = x + 105$ . Solve for  $x$  and find  $m\angle LMN$ .



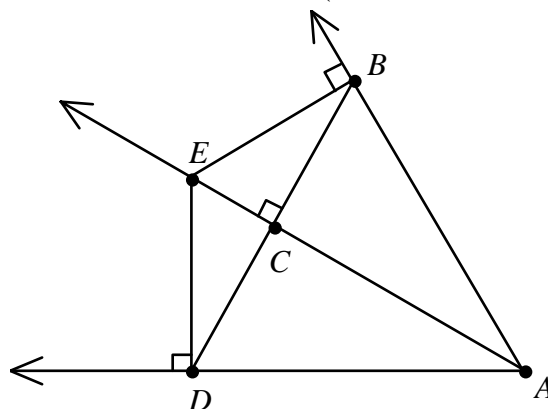
- [A] 4, 19                      [B] 10, 230  
[C] 4, 55                      [D] 10, 205

3. In the figure (not drawn to scale),  $\overrightarrow{MO}$  bisects  $\angle LMN$ ,  $m\angle LMO = 15x - 42$ , and  $m\angle NMO = x + 56$ . Solve for  $x$  and find  $m\angle LMN$ .



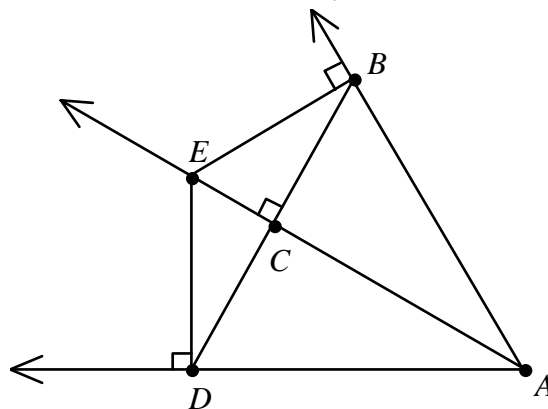
- [A] 7, 126                      [B] 1, 49  
[C] 1, 27                      [D] 7, 147

4. Given:  $\overrightarrow{AE}$  bisects  $\angle DAB$ . Find  $ED$  if  $CB = 12$  and  $CE = 16$ . (not drawn to scale)



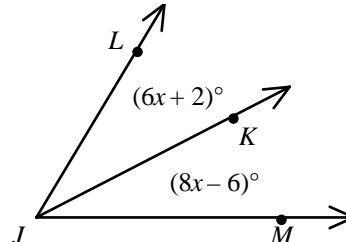
- [A] 20                      [B] 4                      [C] 28                      [D] 192

5. Given:  $\overrightarrow{AE}$  bisects  $\angle DAB$ . Find  $ED$  if  $CB = 24$  and  $CE = 45$ . (not drawn to scale)



- [A] 1080                      [B] 51                      [C] 69                      [D] 21

6. In the diagram below,  $\overrightarrow{JK}$  bisects  $\angle LJM$ . Find  $m\angle LJM$ .



- [A] 35                      [B] 65                      [C] 26                      [D] 86                      [E] 52