

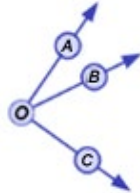


## Vocabulary: Investigating Angle Theorems

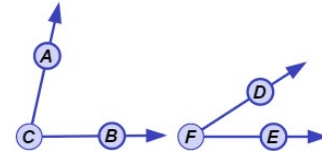


### Vocabulary

- Complementary Angles – two angles whose measures add to \_\_\_\_\_ degrees.
  - Complementary angles can be *adjacent* or *nonadjacent*.



Adjacent complementary angles



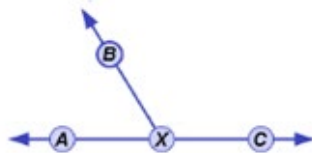
Nonadjacent complementary angles

- Linear Pair – two adjacent angles form a \_\_\_\_\_ and measure \_\_\_\_\_ degrees.

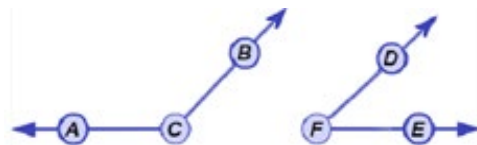
- In the figure shown to the right, rays  $\overrightarrow{XA}$  and  $\overrightarrow{XC}$  also known as “opposite rays” which is a straight line therefore,  $\angle AXB$  and  $\angle BXC$  form a linear pair and are also supplementary.



- Supplementary Angles – two angles whose measures add to \_\_\_\_\_ degrees.
  - Supplementary angles can be *adjacent* or *nonadjacent*.



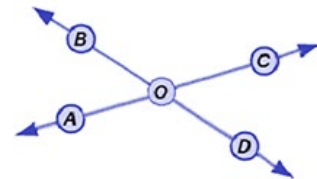
Adjacent supplementary angles



Nonadjacent supplementary angles

- Vertical Angles – two nonadjacent angles formed by intersecting lines.

- A pair of intersecting lines forms two pairs of vertical angles.
  - The vertical angles in the figure to the right are  $\angle AOB$  and  $\angle$ \_\_\_\_\_, and  $\angle AOD$  and  $\angle$ \_\_\_\_\_.



\*Challenge – using the definition about supplementary angles, what can you infer about the degrees of vertical angles?

