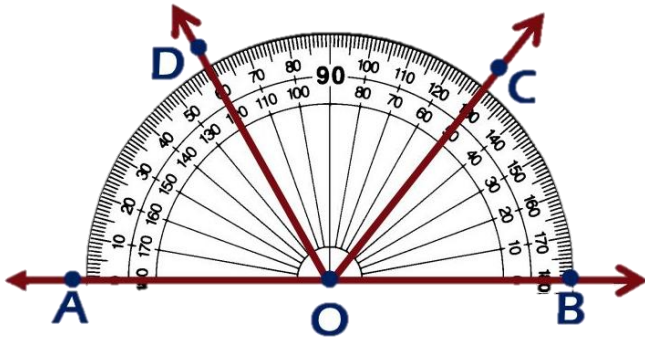


1. Use the diagram below for problem 1: Find the measure of angles $\angle AOD$, $\angle DOC$, $\angle COB$, $\angle AOC$, $\angle DOB$.



$m\angle AOD = \underline{\hspace{2cm}}$ $m\angle DOC = \underline{\hspace{2cm}}$

$m\angle COB = \underline{\hspace{2cm}}$ $m\angle AOC = \underline{\hspace{2cm}}$

$m\angle DOB = \underline{\hspace{2cm}}$

2. Angle R is 30 degrees less than twice the measure of Angle T. Angles R and T are supplementary. Find the measure of each angle.

$m\angle R = \underline{\hspace{2cm}}$

$m\angle T = \underline{\hspace{2cm}}$

3. Angle A and B are complementary. The $m\angle A = x + 5$ and $m\angle B = 4x - 15$. Find x, the $m\angle A$ and the $m\angle B$.

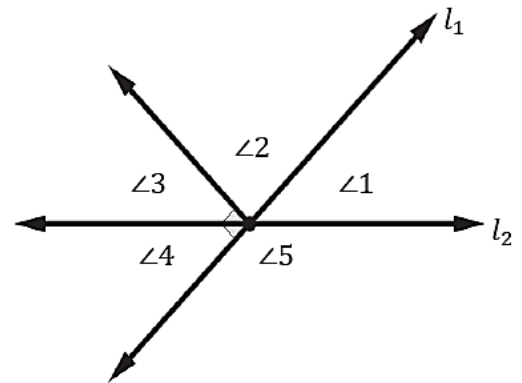
$x = \underline{\hspace{2cm}}$

$m\angle A = \underline{\hspace{2cm}}$

$m\angle B = \underline{\hspace{2cm}}$

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

- a.) $\angle 1$ and $\angle 4$ are vertical angles.
- b.) $\angle 3$ and $\angle 4$ are complementary angles.
- c.) $\angle 5$ and $\angle 4$ are supplementary angles.
- d.) $\angle 1$ and $\angle 3$ form a linear pair.
- e.) $\angle 1$ and $\angle 2$ are adjacent angles.
- f.) $\angle 5$ is a vertical angle to the combination of $\angle 2$ & $\angle 3$.



5. Using the diagram in problem 4. If the $m\angle 3 = 36$, find the measure of all other angles.

6. If $\angle MFG$ and $\angle EFN$ are vertical angles and $m\angle MFG = 7x - 18$ and $m\angle EFN = 5x + 10$, find the value of x and the measure of each angle.

$x = \underline{\hspace{2cm}}$

$m\angle MFG = \underline{\hspace{2cm}}$

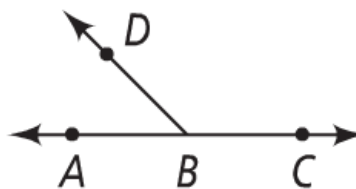
$m\angle EFN = \underline{\hspace{2cm}}$

7. If $m\angle CBD = 5x + 25$ and $m\angle ABD = 2x + 29$ find the value of x and the measure of each angle.

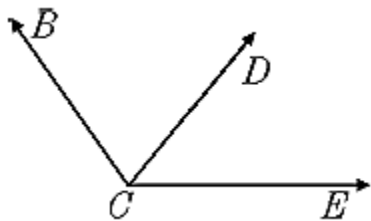
$x = \underline{\hspace{2cm}}$

$m\angle CBD = \underline{\hspace{2cm}}$

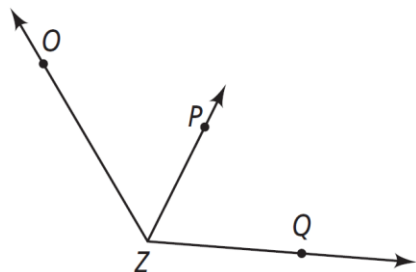
$m\angle ABD = \underline{\hspace{2cm}}$



8. If $m\angle ECB = 6x$ and $m\angle ECD = 3x - 11$ and $m\angle DCB = 74$. What is the value of x ?



9. In the diagram below \overrightarrow{ZP} bisects $\angle OZQ$, $m\angle OZP = 9x - 2$ and $m\angle QZP = 5x + 14$. Find x , the measure of each angle and $m\angle OZQ$.



$x = \underline{\hspace{2cm}}$

$m\angle OZP = \underline{\hspace{2cm}}$ $m\angle PZQ = \underline{\hspace{2cm}}$ $m\angle OZQ = \underline{\hspace{2cm}}$