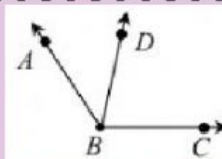


Angle Addition Postulate

Angle Addition Postulate:

If D is in the interior of $\angle ABC$, then $m\angle \underline{\hspace{1cm}} + m\angle \underline{\hspace{1cm}} = m\angle \underline{\hspace{1cm}}$



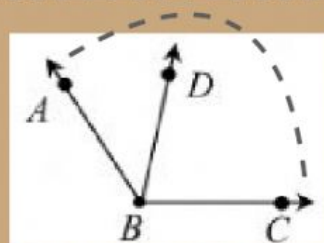
Example 1:

If $m\angle ABD = 48$ and $m\angle DBC = 78$, find $m\angle ABC$

$$m\angle \underline{\hspace{1cm}} + m\angle \underline{\hspace{1cm}} = m\angle \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = m\angle \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} = m\angle \underline{\hspace{1cm}}$$



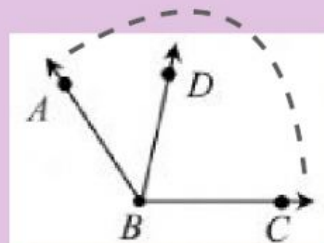
Example 2:

If $m\angle DBC = 74$ and $m\angle ABC = 119$, find $m\angle ABD$

$$m\angle \underline{\hspace{1cm}} + m\angle \underline{\hspace{1cm}} = m\angle \underline{\hspace{1cm}}$$

$$m\angle \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$m\angle \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$



Example 3:

If $m\angle ABC = 141$, $m\angle ABD = 13x + 4$, $m\angle DBC = 10x - 1$

Find x :

$$m\angle \underline{\hspace{1cm}} + m\angle \underline{\hspace{1cm}} = m\angle \underline{\hspace{1cm}}$$

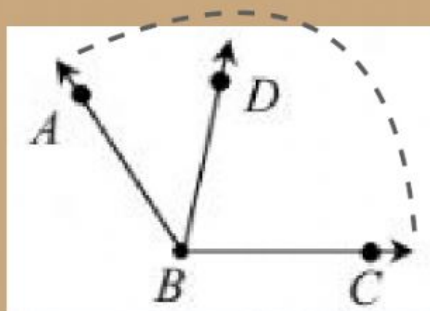
$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$



Find $m\angle ABD$

$$m\angle ABD = \underline{\hspace{1cm}}$$

$$m\angle ABD = \underline{\hspace{1cm}}$$

$$m\angle ABD = \underline{\hspace{1cm}}$$

$$m\angle ABD = \underline{\hspace{1cm}}$$

Find $m\angle DBC$

$$m\angle DBC = \underline{\hspace{1cm}}$$

$$m\angle DBC = \underline{\hspace{1cm}}$$

$$m\angle DBC = \underline{\hspace{1cm}}$$

$$m\angle DBC = \underline{\hspace{1cm}}$$