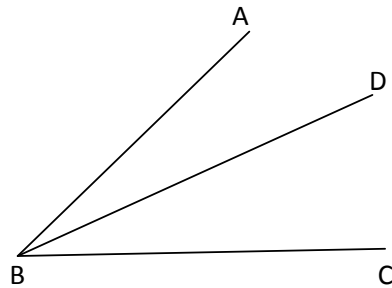


Find the measure of $\angle ABD$ if the measure of angle $\angle ABC=57^\circ$, the measure of $\angle ABD$ is represented by $2x-1$ and the measure of $\angle DBC$ is represented by $5x+2$



Solution:

$\angle ABC = \angle ABD + \angle DBC$, so

$$2x-1+5x+2=57$$

$$7x=56$$

$$x=8$$

$$\angle ABD = 2x-1 = 2 \cdot 8 - 1 = 15$$

Answer: the measure of $\angle ABD$ is 15°