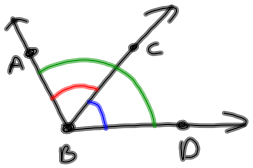
9-10-13

5th Geo



∠CBD or ∠DBC

∠ABC or ∠CBA

∠ABD or ∠DBA

Straight angle

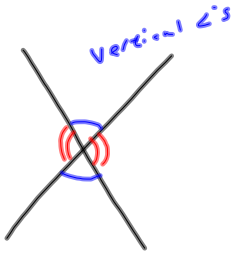
180°

Complementary ∠'s

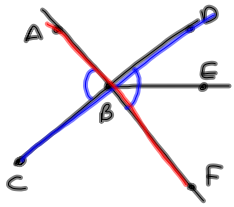
Two angles that add up to 90°

Supplementary ∠'s

Two angles that add up to 180°

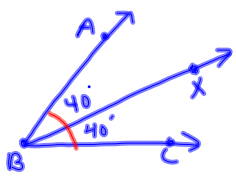


What ∠ is the vertical angle to ∠ABC below? ∠DBF



Bisects – cut into 2 equal parts

$\overrightarrow{BX}$ bisects ∠ABC. If ∠ABX = 40°, what is ∠ABC?



∠ABC = 80°

$\angle A$ and $\angle B$ are vertical angles. $\angle A = 4n+10$ and $\angle B = 2n+40$. What is the measurement of $\angle A$?

$$\angle A = \angle B$$

$$4n+10 = 2n+40$$

$$-2n \qquad -2n$$

$$2n+10 = 40$$

$$-10 \qquad -10$$

$$\frac{2n}{2} = \frac{30}{2}$$

$$n = 15$$

$$\angle A = 4 \cdot n + 10$$

$$4 \cdot 15 + 10$$

$$60 + 10$$

$$70^\circ$$

$\angle A$ and $\angle B$ are <u>complementary</u> angles with $\angle A = 6n+10$ and $\angle B = 4n+30$. What is $m\angle A$?

$$\angle A + \angle B = 90^\circ$$

$$\downarrow \qquad \downarrow$$

$$6n+10 \quad 4n+30 = 90^\circ$$

$$10n + 40 = 90^\circ$$

$$-40 \quad -40$$

$$\frac{10n}{10} = \frac{50}{10}$$

$$n = 5$$

$$\angle A = 6 \cdot n + 10 =$$

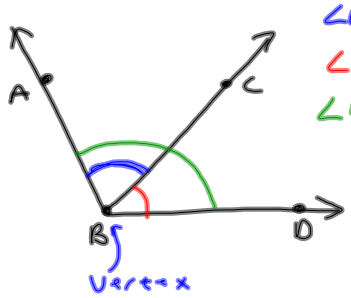
$$6 \cdot 5 + 10$$

$$30 + 10$$

$$40$$

9-10-13
6th Geo

What angles do you see



∠ABC or ∠CBA
∠CBD or ∠DBC
∠ABD or ∠DBA

straight angle

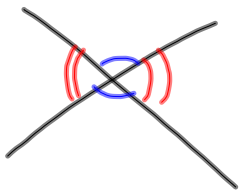
Complementary ∠'s

Two angles that add up to 90°.

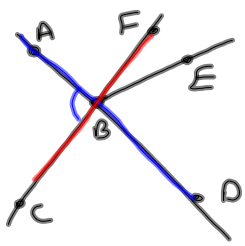
Supplementary ∠'s

Two angles that add up to 180°.

Vertical ∠'s



Which angle is the vertical angle to ∠ABC below?

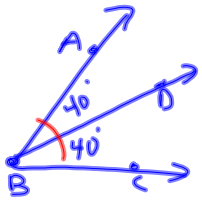


∠FBD

Bisects - cutting into 2 equal parts

$\overrightarrow{BD}$ bisects $\angle ABC$. If $\angle ABD = 40°$, what is $m\angle ABC$?

80°



$\angle A$ and $\angle B$ are vertical angles with $\angle A = 4n+10$ and $\angle B = 2n+30$. What is $m\angle A$?

$\angle A = \angle B$

$4n+10 = 2n+30$

$-2n \quad -2n$

$2n+10 = 30$

$-10 \quad -10$

$\frac{2n}{2} = \frac{20}{2}$

$n = 10$

$\angle A = 4 \cdot n + 10$

$= 4 \cdot 10 + 10$

$= 50°$

$\angle A$ and $\angle B$ are supplementary angles with $\angle A = 6n+10$ and $\angle B = 4n+100°$. What is $m\angle A$?

$\angle A + \angle B = 180°$

$6n+10 + 4n+100 = 180°$

$10n+110 = 180°$

$-110 \quad -110$

$\frac{10n}{10} = \frac{70°}{10}$

$n = 7$

$\angle A = 6n+10$

$= 6 \cdot 7 + 10$

$= 42+10$

$= 52°$