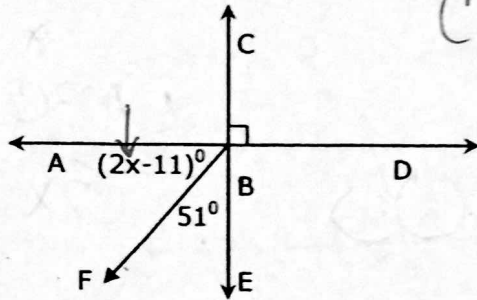


Class Notes

Example 3:



∠ relation?
Complementary

$$\begin{aligned} \angle ABF + \angle FBE &= 90 \\ 2x - 11 + 51 &= 90 \\ 2x + 40 &= 90 \\ -40 &\quad -40 \\ \hline 2x &= 50 \\ x &= 25 \end{aligned}$$

What is the value of x ?

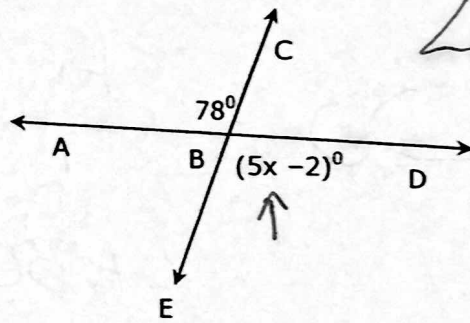
$x = 25$

What is the measure of angle ABF? Show your work.

$$\begin{aligned} 2x - 11 \\ 2(25) - 11 = 50 - 11 = \text{Answer: } \underline{39} \text{ degrees} \end{aligned}$$

$$\begin{aligned} x &= 25 & \frac{2x}{2} &= \frac{50}{2} \end{aligned}$$

Example 4:



∠ relation?
Vertical (equal)

$$\begin{aligned} \angle EBD &= \angle ABC \\ 5x - 2 &= 78 \\ +2 &\quad +2 \\ \hline 5x &= 80 \\ \frac{5x}{5} &= \frac{80}{5} \end{aligned}$$

Part A What is the value of x ? Show your work.

$x = 16$

Part B What is the measure of angle DBE? Show your work.

$$\begin{aligned} 5x - 2 \\ 5(16) - 2 \\ 80 - 2 \end{aligned}$$

Answer: 78 degrees

$x = 16$

What are some math words we should use to explain our answer to Part B?