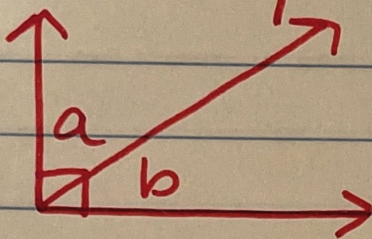


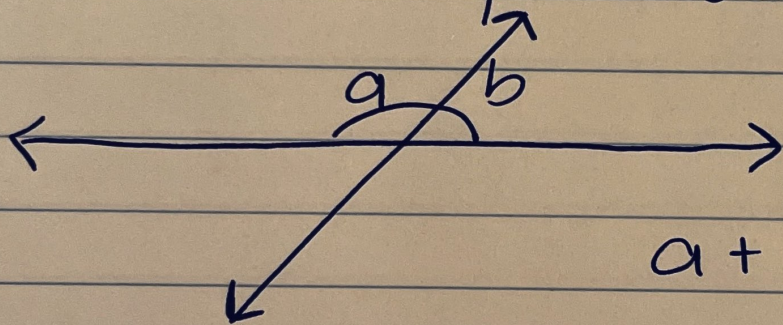
Angle Pair Relationships

Complementary = 90°



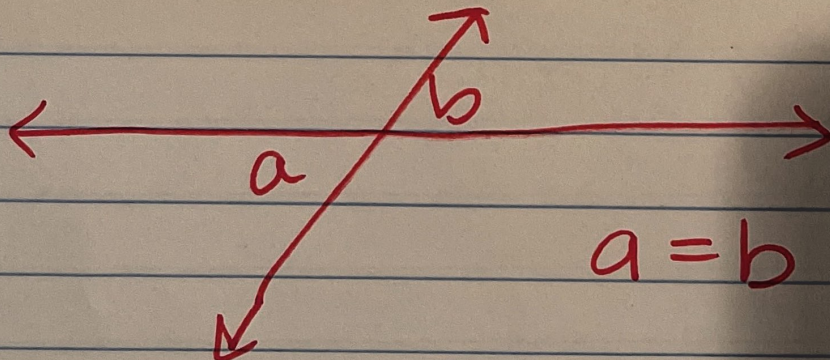
$$a + b = 90$$

Supplementary = 180°



$$a + b = 180$$

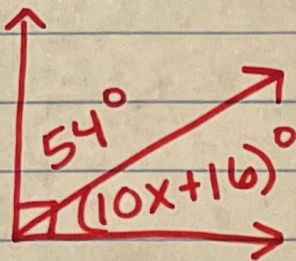
Vertical = each other



$$a = b$$

Examples:

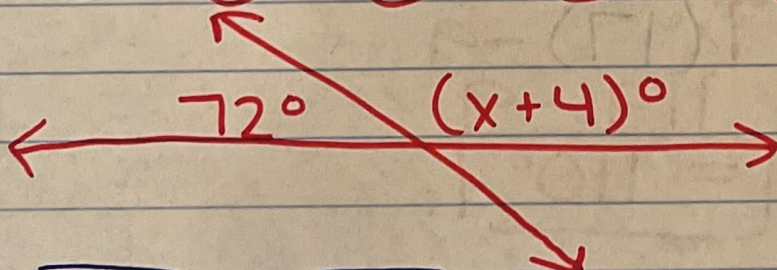
①



$$\begin{aligned} 54 + 10x + 16 &= 90 \\ 70 + 10x &= 90 \\ -70 & \quad -70 \\ \hline 10x &= 20 \\ \frac{10}{10} & \quad \frac{10}{10} \\ \hline x &= 2 \end{aligned}$$

Missing angle msrmt =

$$\begin{aligned} 10x + 16 \\ 10(2) + 16 \\ 20 + 16 &= 36^\circ \end{aligned}$$

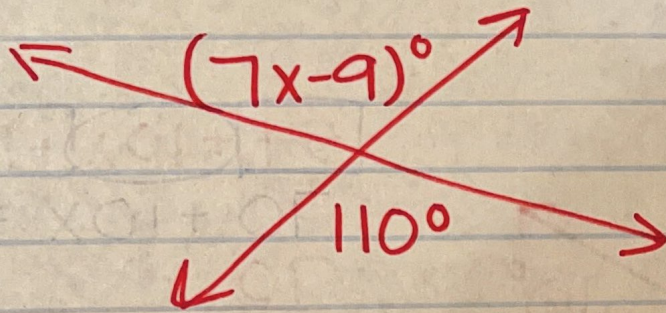


②

$$\begin{aligned} 72 + x + 4 &= 180 \\ 76 + x &= 180 \\ -76 & \quad -76 \\ \hline x &= 104 \end{aligned}$$

Missing angle msrmt =

$$\begin{aligned} x + 4 \\ 104 + 4 &= 108^\circ \end{aligned}$$



$$\begin{aligned} 7x - 9 &= 110 \\ +9 & \quad +9 \\ \hline 7x &= 119 \\ \hline x &= 17 \end{aligned}$$

Missing angle $m\angle rmt =$

$$\begin{aligned} 7(17) - 9 \\ 119 - 9 \\ \hline = 110^\circ \end{aligned}$$