



Exercise 4A

Question 14:

Let the two required angles be x° and $90^\circ - x^\circ$.

Then

$$\frac{x^\circ}{90^\circ - x^\circ} = \frac{4}{5}$$

$$\Rightarrow 5x = 4(90 - x)$$

$$\Rightarrow 5x = 360 - 4x$$

$$\Rightarrow 5x + 4x = 360$$

$$\Rightarrow 9x = 360$$

$$\Rightarrow x = 360/9 = 40$$

Thus, the required angles are 40° and $90^\circ - x^\circ = 90^\circ - 40^\circ = 50^\circ$.

Question 15:

Let the required angle be x° .

Then, its complementary and supplementary angles are $(90^\circ - x)$ and $(180^\circ - x)$ respectively.

Then, $7(90^\circ - x) = 3(180^\circ - x) - 10^\circ$

$$\Rightarrow 630^\circ - 7x = 540^\circ - 3x - 10^\circ$$

$$\Rightarrow 7x - 3x = 630^\circ - 530^\circ$$

$$\Rightarrow 4x = 100^\circ$$

$$\Rightarrow x = 25^\circ$$

Thus, the required angle is 25° .

***** END *****