Exercise 4A

Question 14:

Let the two required angles be x^o and $90^o - x^o$.

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^o and $90^o - x^o = 90^o - 40^o = 50^o$.

Question 15:

Let the required angle be x^o.

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

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

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

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

$\Rightarrow 4x = 100^o$

$\Rightarrow x = 25^o$

Thus, the required angle is 25^o.

********** END **********