



Exercise 4A

Question 6:

(i) Let the required angle be x°

Then, its complement = $90^\circ - x^\circ$

$$\begin{aligned} \therefore & x^\circ = 90^\circ - x^\circ \\ \Rightarrow & x + x = 90 \\ \Rightarrow & 2x = 90 \\ \Rightarrow & x = \frac{90}{2} = 45 \end{aligned}$$

\therefore The measure of an angle which is equal to its complement is 45° .

(ii) Let the required angle be x°

Then, its supplement = $180^\circ - x^\circ$

$$\begin{aligned} \therefore & x^\circ = 180^\circ - x^\circ \\ \Rightarrow & x + x = 180 \\ \Rightarrow & 2x = 180 \\ \Rightarrow & x = \frac{180}{2} = 90 \end{aligned}$$

\therefore The measure of an angle which is equal to its supplement is 90° .

Question 7:

Let the required angle be x°

Then its complement is $90^\circ - x^\circ$

$$\begin{aligned} \Rightarrow & x^\circ = (90^\circ - x^\circ) + 36^\circ \\ \Rightarrow & x^\circ + x^\circ = 90^\circ + 36^\circ \\ \Rightarrow & 2x^\circ = 126^\circ \\ \Rightarrow & x = \frac{126}{2} = 63 \end{aligned}$$

\therefore The measure of an angle which is 36° more than its complement is 63° .

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