Lines and Angles Ex 8.1 Q13

Answer :

Let the angle measures $x°$

Therefore, the measure of its complement becomes $(90-x)^0$

According to the given statement, the angle is 14 more than its complement.

Thus we have,

$$x = 14 + (90 - x)$$
$$x = 104 - x$$
$$x + x = 104$$
$$2x = 104$$
$$x = \frac{104}{2}$$
$$x = \boxed{52}$$

The measure of its complement becomes

$$90 - x = 90 - 52$$
$$= \boxed{38}$$

Hence, the required angle measures $\boxed{52^0}$ and its complement measures $\boxed{38^0}$.

Lines and Angles Ex 8.1 Q14

Answer :

Let the angle measures $x°$

Therefore, the measure of its supplement becomes $(180-x)^0$

According to the given statement, the required angle is twice the supplement.

Thus

$$x = 2(180 - x)$$
$$x = 360 - 2x$$
$$x + 2x = 360$$
$$3x = 360$$
$$x = \frac{360}{3}$$
$$x = \boxed{120}$$

Hence the required angle measures $\boxed{120^0}$.

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