

## 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 = 52

The measure of its complement becomes

$$90 - x = 90 - 52$$
  
= 38

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

## 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 = 120

Hence the required angle measures 120°