

5. total marbles = 24
let no. of blue marbles = x
no. of green marbles = $24 - x$
 $P(\text{green marble}) = \frac{2}{3}$

$$\frac{24 - x}{24} = \frac{2}{3}$$

$$\Rightarrow 72 - 3x = 48$$

$$\Rightarrow -3x = 48 - 72$$

$$\Rightarrow x = \frac{-24}{-3} = 8$$

$$\Rightarrow x = 8$$

\therefore number of blue balls = 8
green balls = $24 - 8$
= 16