

⑤ let Shefali's Marks in Maths = x
her Marks in eng. = $30 - x$
acc. to prob.

$$(x+2)(30-x-3) = 210$$

$$\Rightarrow (x+2)(-x+27) = 210$$

$$\Rightarrow -x^2 + 27x - 2x + 54 = 210$$

$$\Rightarrow x^2 - 25x + 156 = 0$$

$$\Rightarrow x^2 - 12x - 13x + 156 = 0$$

$$\Rightarrow x(x-12) - 13(x-12) = 0$$

$$\Rightarrow (x-12)(x-13) = 0$$

$$\Rightarrow x-12=0, \quad x-13=0$$

$$\Rightarrow x=12, \quad x=13$$

if $x=12$

$$\text{Marks in Maths} = 12$$

$$\begin{aligned} \text{Marks in Eng.} &= 30 - 12 \\ &= 18 \end{aligned}$$

if $x=13$

$$\text{Marks in Maths} = 13$$

$$\begin{aligned} \text{Marks in Eng.} &= 30 - 13 \\ &= 17 \end{aligned}$$