

NCERT Exemplar Solutions by Dev Anoop (Bathinda)
Probability, Ex 13.3

$$\begin{aligned} \textcircled{40} \quad \text{no. of mobiles} &= 48 \\ \text{no. of good mobiles} &= 42 \\ \text{no. of mobiles with minor defects} &= 3 \\ \text{no. of mobiles with major defects} &= 3 \end{aligned}$$

$$P(\text{acceptable to varneka}) = \frac{42}{48} = \frac{7}{8}$$

$$P(\text{acceptable to trader}) = \frac{45}{48} = \frac{15}{16}$$

$$\begin{aligned} \textcircled{41} \quad \text{no. of balls} &= 24 \text{ or } 6x \\ \text{no. of red balls} &= x \\ \text{no. of white balls} &= 2x \\ \text{no. of blue balls} &= 3x \end{aligned}$$

$$P(\text{not red}) = \frac{2x + 3x}{6x}$$

$$= \frac{5x}{6x}$$

$$= \frac{5}{6}$$

$$P(\text{white ball}) = \frac{2x}{6x}$$

$$= \frac{1}{3}$$