

Solutions by Dev Anoop (Bathinda)

⑤ Money borrowed (P_1) = Rs 20000
 rate = 12% p.a., $t = 2$ years, S.I

$$\begin{aligned} \text{Interest paid by Harpreet} &= \frac{P_1 r t}{100} \\ &= \frac{20000 \times 12 \times 2}{100} \\ &= \text{Rs } 4800 \end{aligned}$$

Money lent (P_2) = Rs 20000
 rate = 12% p.a., $t = 2$ years, S.I

$$\begin{aligned} \text{CI}_1 &= \frac{P_1 r t}{100} = \frac{20000 \times 12 \times 1}{100} \\ &= \text{Rs } 2400 \end{aligned}$$

$$\begin{aligned} P_2 &= 20000 + 2400 \\ &= \text{Rs } 22400 \end{aligned}$$

$$\begin{aligned} \text{CI}_2 &= \frac{P_2 r t}{100} = \frac{22400 \times 12 \times 1}{100} \\ &= 2688 \end{aligned}$$

$$\begin{aligned} \text{CI for 2 years} &= 2400 + 2688 \\ &= \text{Rs } 5088 \end{aligned}$$

$$\begin{aligned} \text{gain} &= \text{CI} - \text{SI} \\ &= 5088 - 4800 \\ &= \text{Rs } 288 \end{aligned}$$