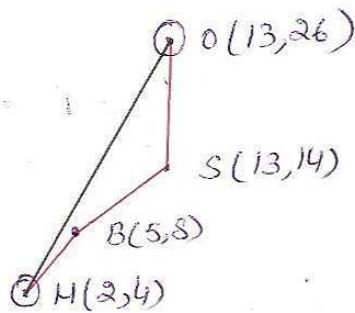


②

H(2,4)



distance of bank from house

$$= \sqrt{(5-2)^2 + (8-4)^2}$$

$$= \sqrt{9+16}$$

$$= \sqrt{25}$$

$$= 5 \text{ units}$$

distance of school from bank

$$= \sqrt{(13-5)^2 + (14-8)^2}$$

$$= \sqrt{64+36}$$

$$= \sqrt{100}$$

$$= 10 \text{ units}$$

distance of office from school

$$= \sqrt{(13-13)^2 + (26-14)^2}$$

$$= \sqrt{12^2}$$

$$= 12 \text{ units}$$

$$\begin{aligned} \text{total distance covered} &= 5+10+12 \\ &= 27 \text{ units} \end{aligned}$$

distance (direct) of office from home

$$= \sqrt{(13-2)^2 + (26-4)^2}$$

$$= \sqrt{11^2 + 22^2}$$

$$= 11\sqrt{1+4}$$

$$= 11\sqrt{5}$$

$$= 11 \times 2.23$$

$$= 24.53 \text{ units}$$

$$\text{extra distance trav.} = 27 - 24.53$$

$$= 27 - 24.53$$

$$= 2.47 \text{ units}$$