

## Ex 5.1

## NCERT Solutions by Dev Anoop (Bathinda)

$$4(iii) -1.2, -3.2, -5.2, -7.2, \dots$$

$$\begin{aligned} a_2 - a_1 &= -3.2 - (-1.2) \\ &= -3.2 + 1.2 \\ &= -2 \end{aligned}$$

$$\begin{aligned} a_3 - a_2 &= -5.2 + 3.2 \\ &= -2 \end{aligned}$$

$$\begin{aligned} a_4 - a_3 &= -7.2 + 5.2 \\ &= -2 \end{aligned}$$

$\therefore$  diff. remains constant

$\therefore$  A.P.

$$4(iv) -10, -6, -2, 2, \dots$$

$$\begin{aligned} a_2 - a_1 &= -6 - (-10) \\ &= -6 + 10 \\ &= 4 \end{aligned}$$

$$\begin{aligned} a_3 - a_2 &= -2 + 6 \\ &= 4 \end{aligned}$$

$$\begin{aligned} a_4 - a_3 &= 2 + 2 \\ &= 4 \end{aligned}$$

$\therefore$  diff. remains constant

$\therefore$  A.P.

$$4(v) 3, 3+\sqrt{2}, 3+2\sqrt{2}, 3+3\sqrt{2}, \dots$$

$$\begin{aligned} a_2 - a_1 &= 3 + \sqrt{2} - 3 \\ &= \sqrt{2} \end{aligned}$$

$$\begin{aligned} a_3 - a_2 &= 3 + 2\sqrt{2} - 3 - \sqrt{2} \\ &= \sqrt{2} \end{aligned}$$

$$\begin{aligned} a_4 - a_3 &= 3 + 3\sqrt{2} - 3 - 2\sqrt{2} \\ &= \sqrt{2} \end{aligned}$$

$\therefore$  diff. remains const

$\therefore$  A.P.

$$4(vi) 0.2, 0.22, 0.222, 0.2222, \dots$$

$$\begin{aligned} a_2 - a_1 &= 0.22 - 0.2 \\ &= 0.02 \end{aligned}$$

$$\begin{aligned} a_3 - a_2 &= 0.222 - 0.22 \\ &= 0.002 \end{aligned}$$

$$\therefore a_2 - a_1 \neq a_3 - a_2$$

$\therefore$  not A.P.

$$4(vii) 0, -4, -8, -12, \dots$$

$$\begin{aligned} a_2 - a_1 &= -4 - 0 \\ &= -4 \end{aligned}$$

$$\begin{aligned} a_3 - a_2 &= -8 - (-4) \\ &= -8 + 4 \\ &= -4 \end{aligned}$$

$$\begin{aligned} a_4 - a_3 &= -12 - (-8) \\ &= -12 + 8 \\ &= -4 \end{aligned}$$

$\therefore$  diff. remains const

$\therefore$  A.P.

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