

دھم خزانہ سی

نمبر ۱۵

اپریل ماہ سن ۱۴۰۰

① - ۷، ۴۷، ۲۴، ۱۱ و ۲ (الف)

ب) $\frac{۱۱}{۹}$ ، $\frac{۹}{۸}$ ، $\frac{۷}{۷}$ ، $\frac{۵}{۶}$ ، $\frac{۴}{۵}$

②

$$t_{13} = \frac{(-1)^{13}}{\sqrt{13+3}} = \frac{-1}{4}$$
(الف)

ب) $t_{13} = 2 \times 13 - \left[\frac{13}{4} \right] = 26 - 3 = 23$

③ (الف) $2n - 10 < 0$

$$2n < 10$$

$$n < 5$$

جواب $n = 1, 2, 3, 4$

ب) $n^2 - 12n + 4 < 0$

$$(n-10)(n-4) < 0$$

جواب $n = 5, 6, 7, 8, 9$

$$\begin{array}{ccccccc}
 & & 4 & & 10 & & \\
 & & | & & | & & \\
 1 & & + & & - & & + \\
 & & | & & | & & \\
 & & 4 & & 10 & &
 \end{array}$$

Diba

$$\text{ج) } t_n = 2n - 14 \leq 0$$

⑤

$$2n \leq 14$$

$$n \leq 7$$

نوع ١

$$\text{ب) } n^2 - 12n + 27 \leq 0$$

$$(n-9)(n-3) \leq 0$$

$$n = [3, 9]$$

$$\begin{array}{ccccccc} & 1 & & 3 & & & 9 \\ \hline \oplus & + & & 9 & - & & 3 & + & \oplus \end{array}$$

نوع ٢

$$a_7 = 7$$

⑥

$$a_9 = 22$$

$$d = \frac{a_9 - a_7}{9 - 7} = \frac{22 - 7}{2} = \frac{15}{2} = 7.5$$

$$a_7 = a_9 - d = 22 - 15 = 7$$

⑦

$$\text{ج) } n^2 - 4n + 1$$

$$\frac{-b}{2a} = \frac{4}{2} = 2$$

$$n = \frac{-b}{2a} = \frac{4}{2} = 2$$

$$\text{ب) } n^2 + 2n + 1$$

$$1 + 2 + 1 = 4$$

$$n = 1$$

Diba

$$\begin{array}{c}
 a+b+c = \varepsilon, -v, -\Lambda, -v, -\varepsilon \\
 \xrightarrow{\quad \quad \quad} \\
 ra+b = r, -1, +1, +r \\
 \xrightarrow{\quad \quad \quad} \\
 ra = +r, -r
 \end{array}$$

(v)

$$n^r - 4n + 1 = \varepsilon n$$

$$ra = r$$

$$a = 1$$

$$1 = -4 + 1 = \varepsilon 1$$

$$ra+b = -r \quad b = -4$$

$$\boxed{\varepsilon 1 = \varepsilon 1}$$

$$a+b+c = -\varepsilon \quad c = 1$$

$$\begin{array}{c}
 -4, -1, \Lambda, r1 \\
 \xrightarrow{\quad \quad \quad} \\
 +8, +9, +1r \\
 \xrightarrow{\quad \quad \quad} \\
 +\varepsilon, +\varepsilon
 \end{array}$$

(A)

$$ra = \varepsilon$$

$$a = r$$

$$\boxed{t_n = rnr - n - r}$$

$$ra+b = d$$

$$b = -1$$

$$a+b+c = -4 \quad c = -r$$

$$ra+1 \neq a+\varepsilon$$

(4)

$$a \neq r$$

$$a = [r + \infty)$$

$$\begin{array}{c}
 1 \times r \quad 2 \times r \quad 3 \times r \\
 \text{ان) } \underbrace{r, 4, \dots, 99}_m \quad m = 3r
 \end{array}$$

(10)

Diba

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208-16
208-16
208-16

4x10 91x10

2016.1.27

$$c) \quad 19 + \cancel{19} = \sqrt{38}$$

$$A \cup B = A + B - A \cap B$$

Diba