

رشته قراخانی (تجربہ) رفتار عطا

الف)  $t_n = 3n^2 - 1 \rightarrow n=1 \rightarrow t_1 = 2$   
 $n=2 \rightarrow t_2 = 11$   
 $n=3 \rightarrow t_3 = 24$   
 $n=4 \rightarrow t_4 = 47$   
 $n=5 \rightarrow t_5 = 74$

2, 11, 24, 47, 74

ب)  $t_n = \frac{2n+1}{n+4} \rightarrow n=1 \rightarrow t_1 = \frac{3}{5}$   
 $n=2 \rightarrow t_2 = \frac{5}{6}$   
 $n=3 \rightarrow t_3 = \frac{7}{7} = 1$   
 $n=4 \rightarrow t_4 = \frac{9}{8}$   
 $n=5 \rightarrow t_5 = \frac{11}{9}$

$\frac{3}{5}, \frac{5}{6}, 1, \frac{9}{8}, \frac{11}{9}$

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

ب)  $t_{13} = \frac{2(13)}{13} - \left[ \frac{13}{4} \right] = 22$

الف)  $t_n = 2n - 10 < 0$

$2n < 10$   
 $n < 5$   
 $1 \leq n \rightarrow 1, 2, 3, 4$

ب)  $t_n = n^2 - 14n + 40 < 0$

$(n-10)(n-4) < 0$   
 $4 < n < 10$   
 $n = 5, 6, 7, 8, 9$

الف)  $t_n = 2n - 14 \leq 0$

$2n \leq 14$   
 $n \leq 7$   
 $1 \leq n \rightarrow 1, 2, 3, 4, 5, 6, 7$

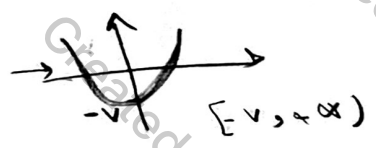
ب)  $t_n = n^2 - 12n + 27 \leq 0$

$(n-9)(n-3) \leq 0$   
 $3 \leq n \leq 9$   
 $n = 3, 4, 5, 6, 7, 8, 9$

$t_4 = 54$   
 $t_9 = 24 \leq t_4 = 54 \rightarrow 9 \leq 4$

$t_3 = \frac{3}{4} - \frac{3}{4} = 0$

الف)  $t_n = n^2 - 9n + 14$   
 $a > 0$   
 $\min \Delta = b^2 - 4ac \rightarrow 81 - 56 = 25$   
 $\Delta = 25$   
 $\sqrt{\Delta} = 5$   
 $\frac{-b \pm \sqrt{\Delta}}{2a} = \frac{9 \pm 5}{2} = 2, 7$



ب)  $n^2 + 4n + 1$   
 $a > 0$   
 $\min \Delta = b^2 - 4ac \rightarrow 16 - 4 = 12$

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

$n=1 \rightarrow 1^2 + 4(1) + 1 = 6$   
 جواب

$t_n = -4, -7, -1, -7, -4$   
 $a+b+c = -4$   
 $c = -1$   
 $a+b = -3$   
 $b = -4$   
 $a = 1$   
 $2a = 2$   
 $a = 1$   
 $\rightarrow n^2 - 4n + 1$   
 $n \leq 10 \rightarrow 10^2 - 4 \cdot 10 + 1 = 61$

$t_n = -4, -1, 1, 1, 4$   
 $a+b+c = -4$   
 $c = -4$   
 $a+b = 0$   
 $b = -1$   
 $a = 1$   
 $2a = 2$   
 $a = 1$   
 $\rightarrow t_n = 2n^2 - n - 7$

$(-\infty, a+4] \cap [2a+1, +\infty)$   
 $\rightarrow a \geq 3 \rightarrow a \in [3, +\infty)$   
 $\rightarrow a \geq 3$   
 $\rightarrow a \in [3, +\infty)$   
 $\rightarrow a \geq 3$   
 $\rightarrow a \in [3, +\infty)$

$(\text{الف}) \frac{99-3}{3} + 1 \leq 32$   
 $(\text{ب}) \frac{100-4}{5} + 1 \leq 20$

$(\text{ج}) \frac{90-10}{10} + 1 \leq 9$   
 $(\text{د}) \frac{23+20}{2} - 4 \leq 7$

$\rightarrow a \geq 3$   
 $\rightarrow a \in [3, +\infty)$

$\rightarrow a \geq 3$   
 $\rightarrow a \in [3, +\infty)$

$\rightarrow a \geq 3$   
 $\rightarrow a \in [3, +\infty)$