

نام و نام خانوادگی: <u>علی جمشیدیان</u> ۱۹ پاسخنامه تشریحی تکلیف شماره ۱۱ کلاس: <u>پسر ۵</u> $t_1 = 1 = 1,5 + b \Rightarrow b = -0,5$ $\Rightarrow t_n = 1,5n^2 + bn$ $t_n = 1,5n^2 - 0,5n \Rightarrow t_{10} = 14,5$	۱
$t_n = 0,5n^2 + bn$ $t_1 = 0 = 0,5 + b \Rightarrow b = -0,5$ $\Rightarrow t_n = 0,5n^2 - 0,5n = 0,5(n^2 - n)$ $n^2 - n = 11 \Rightarrow n(n-1) = 11$ $n = 11$	۲
$a_n = 4n - 1$ $\Rightarrow 4n + 1$ 15 $شماره = 45$ $11n - 3$ $15 + 85 = 100$	۳
$a_n = \frac{(-1)^n}{n} \rightarrow \text{صورت} = -1, +1$ $n \geq 1 \in \mathbb{N}$ $t_n \max \rightarrow t_2 = \frac{1}{2}$ $t_n \min \rightarrow n=1 \rightarrow t_1 = -1$ $\Rightarrow \Delta t_n = 1,5$	۴
$b_n = (-3)^n - 7n$ $b_3 = (-3)^3 - 21$ $b_3 = -41$ $-41 = -2k + 22$ $2k = 63 \Rightarrow k = 31,5$	۵

$$t_{10} - t_7 = 12 = 3d \Rightarrow d = 4$$

$$t_7 - t_1 = 2d = 8$$

6

$$t_8 - t_7 = 1 = d \Rightarrow d = 1$$

$$\Rightarrow a_n = 1n - 1 \rightarrow a_1 = 0, a_{10} = 9$$

$$\rightarrow b_1 = 0, b_9 = 1 \Rightarrow d = 1 \Rightarrow b_n = 1n - 8$$

7

$$\frac{2}{5}, \frac{6}{7}, \frac{10}{9}, \frac{14}{11}, \dots \Rightarrow t_n = \frac{4n-2}{2n+3} \rightarrow \frac{4n-2}{2n+3} < \frac{3}{2} \rightarrow 4n-2 < \frac{3(2n+3)}{2}$$

8

$$\rightarrow 1n-4 < 3n+9 \rightarrow 2n < 13 \Rightarrow n < 6.5 \Rightarrow n = 6$$

9

$$0, 6, 9, 9, 6, 0, \dots$$

$$3A + 2B = -4, 0 + 2 \times 9, 0 = 18$$

$$A = -1, 0 \rightarrow -1, 0n^2 + Bn \rightarrow t_1 = -1, 0 + B = 9 \Rightarrow B = 9, 0$$

10

$$-4, -6, -4, 0, \dots$$

$$a_8 - a_7 = 10 \Rightarrow d = 10$$

$$d = 10 \Rightarrow a_1 = 24 \Rightarrow a_n = 10n + 24$$

$$a = 1$$

$$c = -4$$

$$n^2 + bn - 4 \rightarrow t_1 = -4 = 1 + b - 4 \Rightarrow b = -1$$

$$t_n = n^2 - n - 4$$

$$n^2 - n - 4 = 10n + 24$$

$$n^2 - 11n - 28 = 0$$

$$(n+3)(n-9) = 0 \Rightarrow 9, -3$$

$$9$$

جواب = 9
چون جمله 3-ام برابر