

به دلیل نوشتن اسم من و شماره حافظ می شود.

دوم  $A$

۱ و ۵ و ۱۲ و ۲۲ و ...  $2a = 3 \rightarrow a = 1.5 = \frac{3}{2}$   $a_n + bn + c = \frac{3}{2} + b + 0 = 1 \Rightarrow b = -\frac{1}{2}$   $c = 0$   $a = 1$   $110 = \frac{3}{2} \times 100 - \frac{1}{2} \times 100 = 100$   $\boxed{100}$   $\text{جواب}$

۰ و ۱ و ۳ و ...  $2a = 1 \rightarrow a = \frac{1}{2}$   $a_n + bn + c = \frac{1}{2} + b = 0 \rightarrow b = -\frac{1}{2}$   $c = 0$   $\frac{a_n}{2} - \frac{a_n}{2} = 55 \rightarrow a(n-1) = 110 \rightarrow a = 11$   $\text{جواب}$

۵ و ۱۳ و ۲۱ و ...  $t_n = 18n - 3 \rightarrow 1(11) - 3 = 18$   $\text{جواب}$

۵ و ۹ و ۱۳ و ...  $t_n = 4n + 1 \rightarrow t_{11} = 4(11) + 1 = 45$   $\text{جواب}$

$-1, \frac{1}{2}, -\frac{1}{3}, \frac{1}{4} \rightarrow$   $\frac{1}{2} - (-1) = 1.5$   $\text{جواب}$

$b_n = (-3)^n - v(n) = -27 - 21 = -48$

$a_n = -2n + 22 = -48 \rightarrow -2n = -48 - 22 \rightarrow -2n = -70 \rightarrow n = 35$   $\text{جواب}$

$(10a + b) - (7a + b) = 12 \rightarrow 3a = 12 \rightarrow a = 4$   $\text{جواب}$

$(9a + b) - (a + b) = 5a = 20 \rightarrow a = 4$   $\text{جواب}$

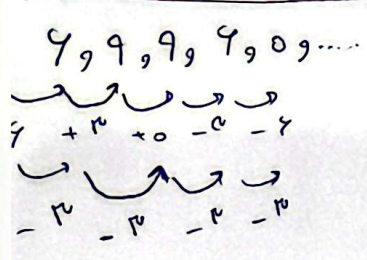
$a_1 = 2a + b = 7$   
 $a_2 = 5a + b = 0$   
 $1 + b = 7 \rightarrow b = 6$

$a_1 = 3(4) - 1 = 11$   
 $a_2 = 4 - 1 = 3$

$b_n = 3, 11, \dots$   $b_n = 10n - 7$   $\text{جواب}$

$$\frac{1}{2}, \frac{1}{\sqrt{2}}, \frac{1}{9}, \frac{1}{11} \rightarrow \text{الفرق الكسري} = \frac{1}{2n-1} \rightarrow \frac{1}{2n-1} < \frac{1}{2} \rightarrow 2n-1 < 2n+1 \rightarrow n < 1.5$$

$n = 1, 2, 3, 4, 5, 6$  و...  $\frac{1}{2}$  دارد. (2)



$$2a = -3 \rightarrow a = -\frac{3}{2}$$

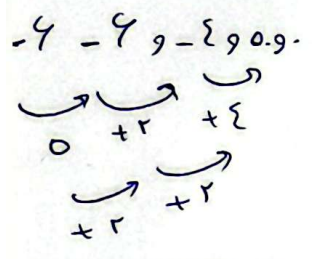
$$c = 0$$

$$an^2 + bn + c \rightarrow -\frac{3}{2}n^2 + b = 9 \rightarrow b = 9 + \frac{3}{2}n$$

$$\rightarrow -\frac{3}{2}n^2 + 9 + \frac{3}{2}n \rightarrow A = \frac{3}{2}, B = 9$$

$$2A + 5B = -9 + 5(9) = 36$$

(9)



$$2a = 2 \rightarrow a = 1$$

$$c = -6 \Rightarrow n^2 - n - 6$$

$$4b - 6 = -6 \rightarrow b = 0$$

-1 + kn

(10)

$$t_r = ka + b = r^2$$

$$t_s = sa + b$$

$$\rightarrow ka = 10 \Rightarrow a = 5, b = 21 \Rightarrow t_n = 5n + 21$$

$$n^2 - n - 6 = 5n + 21 \rightarrow n(n-6) = 27 \Rightarrow n = 9$$