

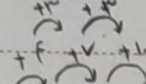
Subject :

Date :

تالیف ۱۱

(هم دفتر)

ایستادگی



$$1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 \Rightarrow a_n = 1/5 n^2 - 0/5 n \Rightarrow n_{10} = 150 - 5 = 145 \quad (1)$$

$$1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 \Rightarrow a_n = \frac{1}{4} n^2 - \frac{1}{4} n = 55 \Rightarrow n^2 - n = 110 \Rightarrow n(n-1) = 110 \Rightarrow n = 11 \quad (2)$$

$$1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 \Rightarrow a_n = 18n - 3 \xrightarrow{n=11} 18 \cdot 11 - 3 = 195 \quad (3)$$

$$1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 \Rightarrow a_n = f(n+1) \xrightarrow{n=1} f(2) = 45 \quad (4)$$

$$a_n = \frac{(-1)^n}{n} \rightarrow \text{در صورتی} \rightarrow 1 = -1 \quad / \quad \left(\frac{1}{2} \right) / \left(\frac{1}{3} \right) = -\frac{1}{3} \dots \Rightarrow \text{افزایش} \quad \frac{3}{2} \quad (5)$$

$$n^3 = (-3)^3 - 21 = -27 - 21 = -48 \rightarrow -48 = -5n + 12 \Rightarrow 5n = 60, n = 12 \quad (6)$$

$$n_{10} - n_5 = 3d = 12 \Rightarrow d = 4 \quad n_4 - n_1 = 5d \Rightarrow 5 \times 4 = 20 \quad (7)$$

$$W_{10} - n_5 - n_2 = 3d = 12 \Rightarrow d = 4, a = 3 \quad a_1 = 3 \quad a_3 = 11 \quad (8)$$

$$P(n) = 3, 11, \dots \Rightarrow \boxed{18n - 5}$$

$$n_1 = \frac{2}{5}, n_2 = \frac{4}{5}, n_3 = \frac{1}{9}, n_4 = \frac{14}{11}, n_5 = \frac{11}{13}, n_6 = \frac{22}{15} \Rightarrow \boxed{14} \quad (9)$$

$$9, 9, 9, 4, 0, \dots \Rightarrow a_n = -1/5 n^2 + 1/5 n \Rightarrow A = -1/5, B = 1/5 \quad (10)$$

$$3A + 5B = -1/5 + 5/5 = 4/5 = 0.8 \quad (11)$$

$$W_{10} = 4, 2, -4, 0 \Rightarrow a_n = n^2 - n - 4 \quad \text{و} \quad a_5 - a_2 = 3d = 10 \Rightarrow d = 5, a = 24 \quad (12)$$

$$5n + 21 = n^2 - n - 4$$

$$a_n - a_{n+1} = 1$$

$$\boxed{n^2 - 6n - 25 = 0 \Rightarrow n = 9 \quad \text{و} \quad 5n + 21 = 66}$$