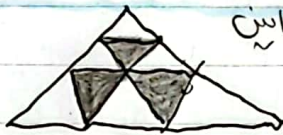


A_{red}

$$\frac{\text{جہاں}}{\text{عزنی}} = \frac{۳}{۲}$$

$$\underbrace{r a = r}_{\text{}} \left[a = \frac{r}{r} \right]$$

$$b = \frac{-1}{4}$$


$$\text{الدرجہ بنتی} = \frac{n \times (n+1)}{2}$$


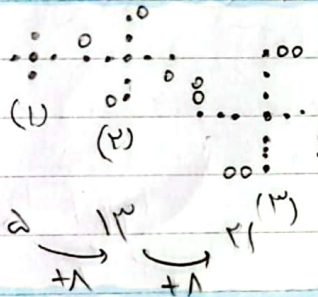
$$\frac{1 \cdot (r)}{(r-1)((r-1)+1)} = \frac{r}{r(r-1)+r} = \frac{r}{r^2} = \frac{1}{r}$$

$$(n-1)^n (n-1+1) = 1 = n$$

$\Rightarrow$ $\frac{(n-1)((n-1)+1)}{2} = 1$
 $n^2 - n - 11 = 0 \Rightarrow (n-11)(n+1)$

$$\begin{aligned} \text{کے لئے} &= 1n - 3 & \xrightarrow{n=11} \\ \text{رہے گا} &= 4(n-1) & \xrightarrow{n=1} \end{aligned}$$

$$K(1.) = \left. \begin{aligned} 1 \times 1 - 1 &= 11 - 1 = 10 \\ 1 \end{aligned} \right\}$$



اختلاف دارد: $a_n = \frac{(-1)^n}{n}$

$$a_n: -1, \frac{1}{r}, -\frac{1}{r}, \frac{1}{r}, -\frac{1}{r}, \dots, \frac{1}{r} - (-1) = \frac{1}{r} + 1 = \frac{1}{r} + \frac{r}{r} = \left\{ \frac{1+r^2}{r} \right\} - 1$$

$$a_n = -\Delta n + r r$$

$$b_n = (-1)^n \cdot \sqrt{n}$$

$$(-w)^w - v = -2k + vr$$

$$-M_{\perp} r' = -2k_{\perp} r r'$$

$$-K_A = -\Delta H + T\Delta S$$

$$\Delta H = F_A + M$$

$$\Delta K = V. \quad K = 1K$$

اس اللہ نازل ہوا :

$$a_v - a_1 = 1r \Rightarrow a_1 + 9d - (a_1 + 9d) = 1r$$

$$a_1 + 4d - a_1 - 9d = 12$$

$$-V_d = 1V$$

$$u_4 - u_1 = \Delta u = \boxed{-P.}$$

$$a_1 - a_9 = 12 \Rightarrow a_1 + 9d - (a_1 + 9d) = 12$$

$$g_1 + 9d - g_1 - 4d = 1r$$

$$v_d = 1 \text{ r} \quad \boxed{d = r}$$

$$a_4 - a_1 = \cancel{a} + dd - \cancel{a}_1 = dd = 'P'$$



جملات درم و چهارم دنباله ی خطی a_n به ترتیب ۷، ۱۵ هستند. اگر جملات اول و دوم این دنباله ی خطی جملات اول و دوم دنباله ی خطی دیگری (b_n) باشند. الگوی خطی دنباله ی b_n را به دست آورید.

$$\begin{array}{l} a_1 = b_1 \quad a_3 = b_3 \\ b_1 = 3 \quad b_3 = 11 \end{array} \quad \begin{array}{l} a_1 = 7 \quad a_4 = 15 \\ a_4 = a_1 + 3d \\ 15 = 7 + 3d \\ 8 = 3d \rightarrow d = \frac{8}{3} \end{array}$$

$$b_n = b_1 + (n-1)d \Rightarrow b_n = 3 + 8(n-1) \quad (b_n = 8n - 5)$$

دنباله ی ... $\frac{1}{9}, \frac{1}{6}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}, \frac{2}{3}, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{6}, \frac{1}{9}$ دارای الگوی منظم است. این دنباله چند جمله ی کسری از ۳ دارد؟

$$\begin{array}{l} \frac{1}{n} < \frac{1}{3} \Rightarrow \frac{1}{n} < \frac{1}{3} \Rightarrow n > 3 \\ \frac{1}{n} < \frac{1}{2} \Rightarrow \frac{1}{n} < \frac{1}{2} \Rightarrow n > 2 \\ \frac{1}{n} < \frac{1}{4} \Rightarrow \frac{1}{n} < \frac{1}{4} \Rightarrow n > 4 \\ \frac{1}{n} < \frac{1}{6} \Rightarrow \frac{1}{n} < \frac{1}{6} \Rightarrow n > 6 \\ \frac{1}{n} < \frac{1}{9} \Rightarrow \frac{1}{n} < \frac{1}{9} \Rightarrow n > 9 \end{array}$$

جمله ی عمومی دنباله ی درجه دوم ... $t_n = 2, 9, 18, 29, 42, 57, 74, 93, 114, 137, 162, 189, 218, 249, 282, 317, 354, 393, 434, 477, 522, 569, 618, 669, 722, 777, 834, 893, 954, 1017, 1082, 1149, 1218, 1289, 1362, 1437, 1514, 1593, 1674, 1757, 1842, 1929, 2018, 2109, 2202, 2297, 2394, 2493, 2594, 2697, 2802, 2909, 3018, 3129, 3242, 3357, 3474, 3593, 3714, 3837, 3962, 4089, 4218, 4349, 4482, 4617, 4754, 4893, 5034, 5177, 5322, 5469, 5618, 5769, 5922, 6077, 6234, 6393, 6554, 6717, 6882, 7049, 7218, 7389, 7562, 7737, 7914, 8093, 8274, 8457, 8642, 8829, 9018, 9209, 9402, 9597, 9794, 9993, 10194, 10397, 10602, 10809, 11018, 11229, 11442, 11657, 11874, 12093, 12314, 12537, 12762, 12989, 13218, 13449, 13682, 13917, 14154, 14393, 14634, 14877, 15122, 15369, 15618, 15869, 16122, 16377, 16634, 16893, 17154, 17417, 17682, 17949, 18218, 18489, 18762, 19037, 19314, 19593, 19874, 20157, 20442, 20729, 21018, 21309, 21602, 21897, 22194, 22493, 22794, 23097, 23402, 23709, 24018, 24329, 24642, 24957, 25274, 25593, 25914, 26237, 26562, 26889, 27218, 27549, 27882, 28217, 28554, 28893, 29234, 29577, 29922, 30269, 30618, 30969, 31322, 31677, 32034, 32393, 32754, 33117, 33482, 33849, 34218, 34589, 34962, 35337, 35714, 36093, 36474, 36857, 37242, 37629, 38018, 38409, 38802, 39197, 39594, 39993, 40394, 40797, 41202, 41609, 42018, 42429, 42842, 43257, 43674, 44093, 44514, 44937, 45362, 45789, 46218, 46649, 47082, 47517, 47954, 48393, 48834, 49277, 49722, 50169, 50618, 51069, 51522, 51977, 52434, 52893, 53354, 53817, 54282, 54749, 55218, 55689, 56162, 56637, 57114, 57593, 58074, 58557, 59042, 59529, 60018, 60509, 61002, 61497, 61994, 62493, 62994, 63497, 63902, 64309, 64718, 65129, 65542, 65957, 66374, 66793, 67214, 67637, 68062, 68489, 68918, 69349, 69782, 70217, 70654, 71093, 71534, 71977, 72422, 72869, 73318, 73769, 74222, 74677, 75134, 75593, 76054, 76517, 76982, 77449, 77918, 78389, 78862, 79337, 79814, 80293, 80774, 81257, 81742, 82229, 82718, 83209, 83702, 84197, 84694, 85193, 85694, 86197, 86702, 87209, 87718, 88229, 88742, 89257, 89774, 90293, 90814, 91337, 91862, 92389, 92918, 93449, 93982, 94517, 95054, 95593, 96134, 96677, 97222, 97769, 98318, 98869, 99422, 100000$

$$\begin{array}{l} 3A + 5B = 13 \\ 3 \times \frac{3}{2} + 5 \times \frac{1}{2} = \frac{9}{2} + \frac{5}{2} = \frac{14}{2} = 7 \end{array}$$

الگوی درجه دوم ... $t_n = -6, -4, 0, 4, 10, 18, 28, 40, 54, 70, 88, 109, 134, 162, 193, 228, 267, 310, 357, 408, 463, 522, 585, 652, 723, 798, 877, 960, 1047, 1138, 1233, 1332, 1435, 1542, 1653, 1768, 1887, 2010, 2137, 2268, 2403, 2542, 2685, 2832, 2983, 3138, 3297, 3460, 3627, 3798, 3973, 4152, 4335, 4522, 4713, 4908, 5107, 5310, 5517, 5728, 5943, 6162, 6385, 6612, 6843, 7078, 7317, 7560, 7807, 8058, 8313, 8572, 8835, 9102, 9373, 9648, 9927, 10210, 10497, 10788, 11083, 11382, 11685, 11992, 12303, 12618, 12937, 13260, 13587, 13918, 14253, 14592, 14935, 15282, 15633, 15988, 16347, 16710, 17077, 17448, 17823, 18202, 18585, 18972, 19363, 19758, 20157, 20560, 20967, 21378, 21793, 22212, 22635, 23062, 23493, 23928, 24367, 24810, 25257, 25708, 26163, 26622, 27085, 27552, 28023, 28498, 28977, 29460, 29947, 30438, 30933, 31432, 31935, 32442, 32953, 33468, 33987, 34510, 35037, 35568, 36103, 36642, 37185, 37732, 38283, 38838, 39397, 39960, 40527, 41098, 41673, 42252, 42835, 43422, 44013, 44608, 45207, 45810, 46417, 47028, 47643, 48262, 48885, 49512, 50143, 50778, 51417, 52060, 52707, 53358, 54013, 54672, 55335, 56002, 56673, 57348, 58027, 58710, 59397, 60088, 60783, 61482, 62185, 62892, 63603, 64318, 65037, 65760, 66487, 67218, 67953, 68692, 69435, 70182, 70933, 71688, 72447, 73210, 73977, 74748, 75523, 76302, 77085, 77872, 78663, 79458, 80257, 81060, 81867, 82678, 83493, 84312, 85135, 85962, 86793, 87628, 88467, 89310, 90157, 91008, 91863, 92722, 93585, 94452, 95323, 96198, 97077, 97960, 98847, 99738, 100633, 101532, 102435, 103342, 104253, 105168, 106087, 107010, 107937, 108868, 109803, 110742, 111685, 112632, 113583, 114538, 115497, 116460, 117427, 118398, 119373, 120352, 121335, 122322, 123313, 124308, 125307, 126310, 127317, 128328, 129343, 130362, 131385, 132412, 133443, 134478, 135517, 136560, 137607, 138658, 139713, 140772, 141835, 142902, 143973, 145048, 146127, 147210, 148297, 149388, 150483, 151582, 152685, 153792, 154903, 156018, 157137, 158260, 159387, 160518, 161653, 162792, 163935, 165082, 166233, 167388, 168547, 169710, 170877, 172048, 173223, 174402, 175585, 176772, 177963, 179158, 180357, 181560, 182767, 183978, 185193, 186412, 187635, 188862, 190093, 191328, 192567, 193810, 195057, 196308, 197563, 198822, 200085, 201352, 202623, 203898, 205177, 206460, 207747, 209038, 210333, 211632, 212935, 214242, 215553, 216868, 218187, 219510, 220837, 222168, 223503, 224842, 226185, 227532, 228883, 230238, 231597, 232960, 234327, 235698, 237073, 238452, 239835, 241222, 242613, 244008, 245407, 246810, 248217, 249628, 251043, 252462, 253885, 255312, 256743, 258178, 259617, 261060, 262507, 263958, 265413, 266872, 268335, 269802, 271273, 272748, 274227, 275710, 277197, 278688, 280183, 281682, 283185, 284692, 286203, 287718, 289237, 290760, 292287, 293818, 295353, 296892, 298435, 299982, 301533, 303088, 304647, 306210, 307777, 309348, 310923, 312502, 314085, 315672, 317263, 318858, 320457, 322060, 323667, 325278, 326893, 328512, 330135, 331762, 333393, 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