

$$n^2 + \frac{1}{4}n(n-1) \Rightarrow 10^2 + \frac{1}{4} \times 10(9) \Rightarrow 100 + 22.5 = 122.5$$

$$\begin{matrix} 0 & 1 & 2 & 3 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ 0 & 1 & 2 & 3 \end{matrix} \Rightarrow a = \frac{3}{4} \quad 3a + b \Rightarrow 3\left(\frac{3}{4}\right) + b = 4 \Rightarrow b = -\frac{1}{4}$$

$$a + b + c = 1 \Rightarrow \frac{3}{4} - \frac{1}{4} + 0 = 1 \Rightarrow +\frac{3}{4}n^2 - \frac{1}{4}n$$

$$\frac{3}{4} \times 100 - \frac{1}{4} \times 10 \Rightarrow 150 - 2.5 = 147.5$$

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$$\begin{matrix} 0 & 1 & 2 & 3 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ 0 & 1 & 2 & 3 \end{matrix} \quad a = \frac{1}{4} \quad 3a + b = 1 \Rightarrow \frac{3}{4} - \frac{1}{4} = 1 \Rightarrow b = -\frac{1}{4}$$

$$a + b + c = 0 \Rightarrow \frac{1}{4} - \frac{1}{4} + 0 = 0 \quad c = 0$$

$$\frac{1}{4}n^2 - \frac{1}{4}n \Rightarrow \frac{1}{4}n(n-1) = 55 \Rightarrow n(n-1) = 110$$

$$11(10) = 110 \quad \boxed{n=11}$$

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$$\begin{matrix} 0 & 1 & 2 & 3 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ 0 & 1 & 2 & 3 \end{matrix} \Rightarrow 4n + 1 \Rightarrow 4(11) + 1 = 45$$

$$\begin{matrix} 0 & 1 & 2 & 3 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ 0 & 1 & 2 & 3 \end{matrix} \Rightarrow 8n - 3 \Rightarrow 8(11) - 3 = 85$$

$$85 + 45 = 130 \quad \boxed{130}$$

مردان:

کسرها:

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$$n=1 \Rightarrow -1$$

$$n=2 \Rightarrow \frac{1}{2}$$

$$n=3 \Rightarrow -\frac{1}{3}$$

$$n=4 \Rightarrow \frac{1}{4}$$

$$\frac{1}{4} \oplus \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$$

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

$$a_k = -5k + 22 \Rightarrow -5k + 22 = -48 \Rightarrow -5k = -70 \Rightarrow k = 14 \quad \boxed{14}$$

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$$t_{10} - t_v = 12 \Rightarrow t_1 + 9d - t_1 - 4d \Rightarrow 5d = 12 \Rightarrow d = \frac{12}{5}$$

$$t_q - t_1 = ? \Rightarrow t_1 + 2d - t_1 \Rightarrow 2d \Rightarrow \Delta(t) = \boxed{2.0}$$

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$$t_r = v$$

$$t_f = 10 \quad t_r + 2d = 10 \Rightarrow 2d = 10 \Rightarrow d = 5 \quad |r, v, 11, 15, \dots$$

$$r, 11, \dots \quad |b_n = 11n - 5|$$

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$$t_n = \frac{r}{0}, \frac{4}{5}, \frac{10}{9}, \frac{16}{11}, \dots \Rightarrow t_n = \frac{r(n-1)}{r_n+r} \Rightarrow \frac{r(n-1)}{r_n+r} < \frac{r}{r} \Rightarrow$$

$$r(n-1) < r(r_n+r) \Rightarrow 11n-11 < 9n+9 \Rightarrow 2n < 20 \Rightarrow n < 10 \Rightarrow n < \frac{10}{1} \Rightarrow n < 10$$

$$\Rightarrow 1 \leq n \leq 9 \Rightarrow \boxed{9}$$

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$$t_n = 4, 9, 14, 19, \dots \quad |a = -\frac{r}{r}$$

$$t_n = An_r + Bn$$

$$ra + b = 4 \Rightarrow r(-\frac{r}{r}) + b = r \Rightarrow \boxed{b = \frac{10}{r}}$$

$$-\frac{r}{r} + \frac{10}{r} + c = 4 \Rightarrow \boxed{c = 0} \quad \left(-\frac{r}{r}\right)n^r + \left(\frac{10}{r}\right)n$$

$$r \times \left(-\frac{r}{r}\right) + 10 \times \left(\frac{10}{r}\right) = -\frac{9}{r} + \frac{10}{r} = \frac{1}{r} \Rightarrow \boxed{r=1}$$

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$$t_n = -4, -1, 2, 5, \dots \quad |a = 1 \quad r-1 = r \quad |b = -1 \quad 1 + (-1) - 4 = -4 \quad c = -4$$

$$t_n = n^r - n - 4$$

$$b_r = r1$$

$$b_f = r1 \quad b_r + 2d \Rightarrow \boxed{d = 5} \Rightarrow b_n = 2n + 11$$

$$n^r - n - 4 = 2n + 11 \Rightarrow n^r - n - 2n = 15 \Rightarrow n(n-3) = 15$$

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$$\boxed{n = 9} \Rightarrow 11 - 9 - 4 = 10 + 11 \Rightarrow 44 = 44$$

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