

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۱۰ کلاس:
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$$t_n = \frac{5}{4}, \frac{9}{4}, \frac{13}{4}, \frac{17}{4}, \dots$$

$$a_1 + (n-1)d \rightarrow \frac{5}{4} + (n-1)\frac{4}{4} = \frac{5}{4} + 4n - 4 = \frac{4n-3}{4}$$

$$b) n=10 \rightarrow 4 \times 10 + 1 = 41$$

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$$L_n = 4, 10, 16, 22 \quad a_n = 4n + 2 \quad S_n = \frac{n}{2}(a_1 + a_{10}) \quad a_{10} = 4 \times 10 + 2 = 42$$

$$a) S_{10} = \frac{10}{2}(4 + 42) = 230$$

ب)

$$4 \times 11 = 44 \rightarrow a_{11} = 4 \times 11 + 2 = 46 \quad S_{11} = \frac{11}{2}(4 + 46) = 275$$

$$4 \times 17 = 68 \rightarrow a_{17} = 4 \times 17 + 2 = 70$$

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$$1 + \sqrt{3}, 2, \frac{3}{2} - \sqrt{3}$$

$$a_n = 1 + \sqrt{3} + (n-1)(1 - \sqrt{3})$$

$$a_{22} = 1 + \sqrt{3} + 21(1 - \sqrt{3}) = 1 + \sqrt{3} + 21 - 21\sqrt{3} = 22 - 20\sqrt{3}$$

$$a_{25} = 1 + \sqrt{3} + 24(1 - \sqrt{3}) = 1 + \sqrt{3} + 24 - 24\sqrt{3} = 25 - 23\sqrt{3}$$

$$a_{25} - a_{22} = 25 - 23\sqrt{3} - (22 - 20\sqrt{3}) = 3 - 3\sqrt{3}$$

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$$a_n = a^{2n}, 3 \times a^{2n}, a^y \rightarrow (3 \times a^{2n}) - a^{2n} = a^y - (3 \times a^{2n})$$

$$2 \times a^{2n} = a^y - 3 \times a^{2n} \rightarrow a^y = 5 \times a^{2n}$$

$$b_n = x, y, y$$

$$r = a^{y-2n} - a^{2n} \rightarrow a^{y-2n} = a^1 \rightarrow y - 2n = 1 \rightarrow y = 2n + 1$$

$$r = \frac{x+y}{2} \rightarrow x+y = 4 \rightarrow y = 4-x$$

$$\begin{cases} y = 4-x \\ y = 2n+1 \end{cases} \Rightarrow 2n+1 = 4-x \rightarrow 2n = 3-x \rightarrow \boxed{x=1}, \boxed{y=3}$$

$$xy = 3$$

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$$2n-1, 2n-1, 4n$$

$$\frac{2n-1}{2} + \frac{2n-1}{2} = 4n \Rightarrow 2n-1 = 4n \rightarrow 2n = 1 \rightarrow n = \frac{1}{2}$$

$$t_1 = 2 \times \frac{1}{2} - 1 = 0 \quad d = 2$$

$$t_k = t_1 + kd \rightarrow 0 + k \times 2 = 4 \rightarrow k = 2$$

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$$a_n = r_2 \otimes V, \sim r_{n+1} \xrightarrow{n=r_0} F1 \rightsquigarrow a, \sim, F1 \rightsquigarrow \frac{F1-a}{4} + 1 = V$$

$$b_n = r_2 \otimes A, \sim r_{n-1} \xrightarrow{n=r_0} a_9 \quad t_1 = a \quad d = r \times r = 4 \quad t_1 + \frac{(r-1)d}{r} = F1$$

$$a, 11, 14, 17, 20, 23, F1 \rightarrow \infty$$

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$$t_1 + t_1 + d + t_1 + rd = 21 \rightarrow 3t_1 + rd = 21 \rightarrow 3(t_1 + d) = 21 \rightarrow t_1 + d = 7 \rightarrow -t_1 - d = -7$$

$$t_1 + t_1 + rd + t_1 + rd = 10a \rightarrow 3t_1 + 2rd = 10a \rightarrow 3(t_1 + rd) = 10a \rightarrow \frac{t_1 + rd = 10a}{d = 2a, t_1 = -21}$$

$$ar - ar + a_1 \rightarrow t_1 + rd - t_1 - d + t_1 = t_1 + d = 7$$

$$t_1 = -21 \rightarrow \frac{V}{-21} = -\frac{1}{3}$$

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$$t_1 + t_1 + d + t_1 + rd = 1a \rightarrow 3t_1 + rd = 1a \rightarrow 3(t_1 + d) = 1a \rightarrow (t_1 + d = a) \rightarrow \begin{cases} -2t_1 - rd = -1a \\ 3t_1 + 2rd = 2a \end{cases}$$

$$t_1 + rd + t_1 + rd = 2a \rightarrow 2t_1 + 2rd = 2a \rightarrow t_1 + rd = a$$

$$[t_1 = 2, [d = 3 \rightarrow ad = 1a$$

$$t_{10} = t_1 + 9d \rightarrow 2 + 27 = 29$$

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$$r \left(\frac{a}{x} (a_1 + a_1^{ad}) \right) = 9 \times \frac{r}{x} (a_1 + a_1^{rd}) \rightarrow r(a_1 + ad) = 9r(a_1 + rd)$$

$$ra_1 + ad = 9a_1 + 9rd \rightarrow rd = 8a_1 \rightarrow a_1 = \frac{rd}{8}$$

$$ar_0 \rightarrow a_1 + 9d = \frac{rd}{8} + \frac{9rd}{8} = \frac{10rd}{8} \Rightarrow \frac{ar_0}{av} = \frac{\frac{10ad}{8}}{\frac{9rd}{8}} = \frac{10 \times 10ad}{8 \times 9d} = \frac{100}{72} = \frac{25}{18}$$

$$av \rightarrow a_1 + 9d = \frac{rd}{8} + \frac{9rd}{8} = \frac{10rd}{8}$$

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$$t_1 = 11$$

$$t_v = 2a \rightarrow t_1 + 9d = 2a \rightarrow 9d = 2a \rightarrow d = \frac{2a}{9} \Rightarrow t_k = t_1 + 9d = 2a$$

$$t_1 \quad (t_p) \quad (t_w) \quad (t_f) \quad (t_o) \quad \dots \quad t_4$$

$$r_1 \rightarrow r_2 \rightarrow r_3 \rightarrow r_4 \rightarrow r_5 \rightarrow r_6 \rightarrow r_7 \rightarrow r_8 \rightarrow r_9 \rightarrow r_{10}$$

$$\Rightarrow \text{العدد} = 8$$

$$t_1 = 2a$$

$$r_1 t_1 + rd = 2r \rightarrow rd = -1a \rightarrow d = -a$$

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