

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۱ کلاس:
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$$t_n = \frac{5}{4}, \frac{9}{4}, \frac{13}{4}, \frac{17}{4}, \dots$$

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

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

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

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

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

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

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

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

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

$$b_n = x, y, y$$

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

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

$$\begin{cases} y = 2r - x \\ y = 2n + 1 \end{cases} \Rightarrow 2r - x = 2n + 1 \rightarrow 2r = 2n + 1 + x \rightarrow 2r = 2n + 1 + 1 \rightarrow 2r = 2n + 2 \rightarrow r = n + 1$$

$$xy = 3$$

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

$$\Rightarrow 2n+1 = 3 \rightarrow 2n = 2 \rightarrow n = 1$$

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

$$t_k = t_1 + kd \rightarrow -1 + 9 = 8$$

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

$$t_1 + t_1 + rd + t_1 + rd = 10a \rightarrow 3t_1 + 2rd = 10a \rightarrow 3(t_1 + rd) = 10a \rightarrow \frac{t_1 + rd = 10a}{d = r \times a, t_1 = -r1}$$

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

$$t_1 = -r1 \rightarrow \frac{V}{-r1} = -\frac{1}{r}$$

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

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

$$[t_1 = r, [d = r \rightarrow ad = 1a$$

$$t_1 = t_1 + rd \rightarrow r + r \times r = 1a$$

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$$r \left(\frac{a}{x} (a_1 + a_2) \right) = 9 \times \frac{r}{x} (a_1 + a_2) \rightarrow r(a_1 + a_2) = 9r(a_1 + a_2)$$

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

$$ar_0 \rightarrow a_1 + 9d = \frac{rd}{8} + \frac{9rd}{8} = \frac{10rd}{8} \Rightarrow \frac{ar_0}{av} = \frac{\frac{10rd}{8}}{\frac{9rd}{8}} = \frac{10}{9} = \frac{V \times 10d}{9 \times 9d} = \frac{10}{9} = 1.11$$

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

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$$t_1 = 11$$

$$t_v = 12 \rightarrow t_1 + 4d = 12 \rightarrow 4d = 12 - 11 \rightarrow d = 1 \Rightarrow t_k = t_1 + r d = 11 + 1 \times 1 = 12$$

$$t_1 \quad t_2 \quad t_3 \quad t_4 \quad \dots \quad t_n$$

$$r \times 1 \rightarrow r \times 2 \rightarrow r \times 3 \rightarrow r \times 4 \rightarrow r \times 5 \rightarrow r \times 6 \rightarrow r \times 7 \rightarrow r \times 8 \rightarrow r \times 9 \rightarrow r \times 10 \rightarrow r \times 11 \rightarrow r \times 12$$

$$t_1 = 11$$

$$r \times t_1 + rd = 12 \rightarrow rd = 12 - 11 \rightarrow d = 1$$

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