

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۱۷۰ کلاس دهم فصل ۳	۱ $a_n = n^2 - 2n + 2 \rightarrow a_4 = 4$ $1, 4, 9, 16, \dots \rightarrow \frac{1}{1}, \frac{4}{4}, \frac{9}{9}, \frac{16}{16}, \dots$ $\frac{11}{92}$: حاصل $\frac{11}{92}$: دهم $\frac{11+4}{2} = \sqrt{13}$
۲ $131, 364, 635, 946, 1307, 1718, 2189, 2720, 3311, 3962, 4673, 5444, 6275, 7166, 8117, 9138, 10229, 11390, 12621, 13922, 15293, 16734, 18245, 19826, 21477, 23208, 25019, 26900, 28851, 30872, 32963, 35124, 37355, 39656, 42027, 44468, 46979, 49560, 52211, 54932, 57723, 60584, 63515, 66516, 69587, 72728, 75939, 79220, 82581, 86012, 89513, 93084, 96725, 100436, 104217, 108068, 111989, 115980, 120041, 124172, 128373, 132644, 136985, 141396, 145877, 150428, 155049, 159740, 164501, 169332, 174233, 179204, 184245, 189356, 194537, 199788, 205109, 210500, 215961, 221492, 227093, 232764, 238505, 244316, 250197, 256148, 262169, 268260, 274421, 280652, 286953, 293324, 299765, 306276, 312857, 319508, 326229, 333020, 339891, 346842, 353863, 360954, 368115, 375346, 382647, 389918, 397259, 404670, 412151, 419702, 427323, 435014, 442775, 450606, 458507, 466478, 474519, 482630, 490811, 499062, 507383, 515774, 524235, 532766, 541367, 549938, 558579, 567290, 576071, 584922, 593843, 602834, 611895, 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56210109, 56296320, 56382591, 5$	

$a_r = a + d / a_r = a + r d / a_r = a + r d$ $(a + r d)^r = a(a + r d) \times a + r(a + d) \times a$ $\hookrightarrow a(a + r d) + r a(a + d) = a a^r + 1 a d + r a^r + r a d \Rightarrow 1 a^r + 1 r a d$ $(a + r d)^r = 1 a^r + 1 r a d \rightarrow a^r + r a d^r + 1 a d = 1 a^r + 1 r a d$ $\hookrightarrow a^r + r a d^r + 1 a d - 1 a^r - 1 r a d = 0 \rightarrow \underline{r a^r + r a d - r a d^r = 0}$ $(\text{ادامہ سوال مندرجہ آخر})$ $r a^r + r a d - r a d^r = 0$	۶
$a, b, c \rightarrow b - a = c - b \rightarrow r b = a + c$ $b, \frac{a}{r}, \frac{c}{r} \rightarrow \frac{a^r}{r} = \frac{c}{r} \times b \Rightarrow \frac{a^r}{r} = \frac{c b}{r} \Rightarrow a^r = b c$ $c = r b - a$ $a^r = (r b - a) b \rightarrow a^r = r b^2 - a b \rightarrow a^r - r b^2 + a b = 0$ $a = \frac{-b \pm \sqrt{b^2 - 1 a b^r}}{r} = \frac{-b \pm r b}{r} \rightarrow \cancel{a = b} \quad \boxed{a = -r b}$ $\frac{a}{r} = \frac{-r b}{r} = -b$ $\frac{c}{r} = \frac{r b}{r} = b \quad \left\{ \begin{array}{l} \frac{-b}{b} = -1 = q(xr) \quad \boxed{q = -r} \end{array} \right. \rightarrow \text{جواب}$	۷
$\text{حالیہ: } a, b, c \Rightarrow b^r = a \cdot c / \frac{b}{a} = \frac{c}{b} = r \rightarrow b = a r$ $\text{حالیہ: } c, r a, r b \Rightarrow r a - c = r b - r a$ $r a - c = r b - r a \rightarrow r a - c = r b$ $r a - a r^2 = r a r \rightarrow a \neq 0 \Rightarrow r - r^2 = r \Rightarrow 0 = (r + 1)(r - 1) = 0$ $\frac{r}{r} = \frac{a r^r}{a r^2} = r = (-1)^r = -1$ $\frac{r}{r} = \frac{a r^r}{a r^2} = r = (-1)^r = -1$	۸
$\frac{a_r}{a_r^r} + \frac{a_r}{a_r^r} = r \Rightarrow \left[\frac{a_r^r}{a_r^r} = \frac{r^r}{a_r^r} \right] + \left[\frac{a_r^r}{a_r^r} = \frac{a_r}{a_r} = \frac{r}{a} \right]$ $\hookrightarrow \frac{r^r}{a_r^r} + \frac{r}{a} = r \quad \frac{t = r}{a} \rightarrow t^r + t = r$ $t^r + t - r = 0 \rightarrow (t + r)(t - 1) = 0 \Rightarrow \begin{cases} t = 1 \\ t = -r \end{cases}$ $\frac{a_r}{a_r^r} = \frac{a_r^r}{a_r} = \frac{a}{r} \xrightarrow{t=1} \textcircled{1}$ $\xrightarrow{t=-r} \textcircled{2}$	۹
$a_r = \sqrt{a r} \rightarrow a_r^r = a r \rightarrow \boxed{q = a r}$ $a a = r v$ $\frac{a_r^r}{a_r^r} \times a a = a a$ $a_r^r = r v \rightarrow \boxed{a_r = r}$ $\frac{1}{r} - \frac{1}{r} = \frac{r - r}{r} = \frac{1}{r} \rightarrow \text{جواب آخر}$ $a_r \times q^{-r} = a_r^{-1} = \frac{1}{a_r} = \textcircled{a_1}$	۱۰

☆ (اگر کسی سوال 4) ☆

$$\frac{-v \pm \sqrt{v^2 + v_0^2}}{1 \pm} = \frac{-v \pm \sqrt{v_0^2}}{1 \pm}$$

$$a \pm = a + v d \rightarrow \frac{a \pm}{d} = \frac{a}{d} + v = t + v$$

$$\frac{a \pm}{d} = v + \frac{-v \pm \sqrt{v_0^2}}{1 \pm}$$

نکته

$$\textcircled{1}: v + \left(\frac{-v + \sqrt{v_0^2}}{1 \pm} \right) = \frac{v_0^2 + \sqrt{v_0^2}}{1 \pm}$$

$$\textcircled{2}: v + \left(\frac{-v - \sqrt{v_0^2}}{1 \pm} \right) = \frac{v_0^2 - \sqrt{v_0^2}}{1 \pm}$$

$$4(a+d)r = 2a(a+rd) + ra(a+d)$$

$$4a^2 + 4d^2 + 4rad = 2a^2 + 2rad$$

$$2a^2 + 2ad - 4d^2 = 0 \rightarrow a = \frac{\pm d + \sqrt{d^2 - 4(-4d^2)}}{2} = \frac{-d \pm \sqrt{d}}{2} \rightarrow a = -rd$$

$$1 \rightarrow \frac{ar}{d} = \frac{-rd + rd}{d} = 1 \checkmark$$

$$2 \rightarrow \frac{ar}{d} = \frac{\frac{rd}{r} + rd}{d} = \frac{4d}{d} = 4 \checkmark$$