

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۷ کلاس ۱۳۰۰

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رابطه حساب: $\frac{9d+11}{2} = 11^3$

اولین عدد: $(n-1)^2 + 1$

آخرین عدد: $9^2 = 81$

دسته: $(9-1)^2 + 1 = 65$

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$\{1, 2, 3\}, \{4, 5, \dots, 12\}, \{13, \dots, 39\}, \{40, \dots, 120\}$

$\{1, 2, \dots, 36\}$

$S_n = \frac{n}{2} (2a + (n-1)d)$

$a = 1, d = 1$

$= \frac{36 \times 37}{2} = 666$

$n = 36, 37, 121 + 1 = 122$

$S_n = \frac{n}{2} (2a + (n-1)d) = \frac{122 \times 123}{2} = 7511$

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$n = 21 \rightarrow 1, 2, 3, \dots, 21$

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$S_n = \frac{n}{2} (2a + (n-1)d) = \frac{21 \times 22}{2} = 231$

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$u_n = an^2 + bn + c = -\frac{1}{6}n^2 + bn + c$

$a = \frac{1}{6} \times 1 - a_0 = \frac{1}{6} \times 1 - 18 = -\frac{1}{6}$

$u_n = -\frac{1}{6}n^2 + bn + c$

$u_0 = -\frac{1}{6} \times 0^2 + b \times 0 + c = -18$

$c = -18$

$u_1 = -\frac{1}{6} \times 1^2 + b \times 1 + c = 18$

$-\frac{1}{6} + b - 18 = 18$

$b = 37$

$u_n = -\frac{1}{6}n^2 + 37n - 18$

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$a_n - a_{n-1} = b_n - b_{n-1} = \frac{1}{6}n = \frac{1}{6}n'$

$\frac{b_n}{n} = \frac{b_1 + \frac{1}{6}n'}{n} = \frac{1}{6}n' = \frac{1}{6}$

$$f a_r^r = \Delta a_r a + \kappa a_r a \rightarrow f(a+d)^r = \Delta(a+d)a + \kappa(a+d)a$$

$$\rightarrow \underbrace{f a_r^r + f d^r + \kappa a d}_{\text{}} = \underbrace{\Delta a^r + \kappa a^r}_{\text{}} + \underbrace{\Delta d^r + \kappa a d}_{\text{}}$$

$$f d^r = \kappa a^r a d$$

$$\rightarrow \kappa a^r a d - f d^r = 0 \rightarrow a = \frac{-d \pm \sqrt{\epsilon q d r}}{\epsilon} = \frac{-d \pm \sqrt{\epsilon} d}{\epsilon} \rightarrow \frac{f d}{\epsilon} = \frac{\epsilon}{r} d$$

$$\frac{a_f}{d} = \frac{a+d}{d} = \frac{1}{1} = 1$$

$$\frac{f d + \kappa a d}{a} = \frac{1}{1} = 1$$

$$\frac{-\Delta d}{\epsilon} = \frac{\kappa}{r}$$

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$$a = n - 1$$

$$b = n$$

$$c = n d$$

$$b \times \frac{c}{\epsilon} = \left(\frac{a}{r}\right)^r \rightarrow \frac{n(n d)}{\epsilon} = \left(\frac{n-1}{r}\right)^r$$

$$\rightarrow \cancel{r^r} r n d = \cancel{r^r} r n d - \cancel{r n d}$$

$$d^r - \kappa n d = 0 \rightarrow d(d - \kappa n) = 0 \rightarrow d = 0 \text{ or } d = \kappa n$$

$$b, \frac{a}{r}, \frac{c}{\epsilon} \rightarrow n, \frac{n-1}{r}, \frac{n n d}{\epsilon} \rightarrow n, -n, n$$

$$\boxed{-1} \text{ or } \boxed{-2}$$

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$$a = \frac{n}{q} \text{ (some)}$$

$$b = n \text{ (some)}$$

$$c = n q \text{ (some)}$$

$$\kappa b + c = \kappa a$$

$$\kappa n + n q = \frac{\kappa n}{q}$$

$$\kappa n q + n q^r = \epsilon n$$

$$\kappa n q + n q^r - \epsilon n = 0$$

$$\kappa q^r + q^r - \epsilon = 0$$

$$(q + \epsilon)(q - 1) = 0$$

$$q = -\epsilon \text{ or } q = 1$$

$$\frac{a_q}{a_f} = q^r = \frac{1}{-\epsilon} \boxed{-\epsilon}$$

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$$\frac{x q^r}{x^r q^r} + \frac{x q}{x^r} = r$$

$$\frac{q^r}{a^r} + \frac{q}{a} = r \rightarrow \frac{q^r + a q}{a^r} = r$$

$$\rightarrow q^r + a q = \kappa a^r$$

$$\kappa a^r - q^r - a q = 0$$

$$\Delta = q^r - \epsilon \kappa (-q^r)(r)$$

$$\Delta = q q^r$$

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$$\frac{a^r}{a_r} = \frac{a^r}{a q} = \frac{a}{q} = \frac{1}{r} \rightarrow \boxed{\frac{1}{r}}$$

$$a = q \rightarrow a = \frac{q \pm \sqrt{q q^r}}{\epsilon}$$

$$q = -\kappa \rightarrow a = \frac{-q}{r}$$

$$a_r = \sqrt{a_f}$$

$$a q^r = \sqrt{a q^r}$$

$$a^r q^r = a q^r \rightarrow a q = 1 \rightarrow a = \frac{1}{q} = \frac{1}{r}$$

$$a_d = \kappa v$$

$$a q^r = \kappa v$$

$$a q^r q^r = \kappa v$$

$$q = \kappa$$

$$\frac{1}{r} - \frac{1}{r} = \boxed{\frac{1}{\epsilon}}$$

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