

نام و نام خانوادگی آدرس پاسنامه تشریحی تکلیف شماره کلاس

$r = \frac{\frac{1}{r}}{\frac{1}{r}} = r$ $a_{10} = a_1 r^9$ $a_{10} = \frac{1}{r} \times 212$ $a_{10} = 207$	$\frac{a_{10}}{a_1 r} = \frac{a_1 r^{10}}{a_1 r^1 r}$ $= r^8 \rightarrow (r)^8 = 16$	$\sqrt{a_1 \times a_{10}}$ $a_1 = \frac{1}{r} \times r^8 = r^7$ $a_{10} = 207$ $\sqrt{r^7 \times 207} = \sqrt{10 \times r^7} = r^7$	$a_n = \frac{1}{r} \times r^{n-1}$ $128 = \frac{1}{r} \times r^{n-1}$ $r^{n-1} = 207 = r^8$ $n-1 = 8$ $\boxed{n=9}$	1
$a_0 = 12$ $a_n = 96$ $r^3 = \frac{96}{12} = 8$ $r = 2$	$a_{10} = a_0 \times r^a$ $a_{10} = 12 \times 2^9 = \boxed{384}$			2
$\frac{a_r}{r^r} \times \frac{a_r}{r} \times a_r \times a_r \times a_r \times a_r \times a_r = r^r$ $a_r^6 = r^r \times r^r \times r^r = r^{3r}$ $a_r = \boxed{3}$	$a_1 \times a_0$ $\frac{a_r}{r^r} \times (a_r r^r) = a_r^r$ $a_1 \times a_0 = 3^r = \boxed{9}$			3
$r^r = \frac{r^b}{r^a}$ $r^r = r^{\frac{b-a}{r}}$ $b-a = 0$	$\frac{b-a}{n+1} \rightarrow \frac{0}{1+1} = \frac{0}{r} = r/0$			4
$\frac{a_{n+1}}{a_n} = r^r = \frac{x}{1-x}$ $\frac{a_{11}}{a_1} = r^r = \frac{x+1}{x}$	$\frac{x}{1-x} = \frac{x+1}{x}$ $x^2 = x+1 - x^2 - x$ $2x^2 = 1$ $x^2 = \frac{1}{2} \rightarrow x = \pm \frac{1}{\sqrt{2}} = \pm \frac{\sqrt{2}}{2}$ $x = \frac{1}{\sqrt{2}}$			5

$a_1 + ar^n = r^n \rightarrow a + ar^n = r^n \rightarrow d = \frac{r^n}{r(1+r)} \rightarrow 1r(1+r^n) = r^n r(1+r)$ $ar + ar^n = 1r \rightarrow ar + ar^n = 1r \rightarrow d = \frac{1r}{r(1+r)}$ $a_1 = \frac{1r}{r(1+r)} = \frac{1r}{1r} = 1$ $1, r, r^2, \dots, r^n$	$1r + 1r^n = r^n r + r^n r^n$ $r^n - r^n = r^n - r^n + r^n = 0$ $\downarrow$ $r = r$
$a_1 + ar + ar^2 = 1r \rightarrow a(1+r+r^2) = 1r \rightarrow \frac{r}{r}(1+r+r^2) = 1r$ $a_1, ar, ar^2 = r \rightarrow ar^2 = r \rightarrow ar = r \rightarrow a = \frac{r}{r}$ $1, r, r^2$ r, r^2, r^3	$r(1+r+r^2) = 1r$ $r^3 - 1r + r = 0$ $\swarrow \searrow$ $a = 1 \quad r = r$
$a_n = r, r^2, r^3, \dots$ $S_{10} = r \left(\frac{r^{10} - 1}{r - 1} \right) \rightarrow S_{10} = r^{10} - 1$	$a_1, ar, \dots, a_{10} =$ $a_n = a_1 \cdot r^{n-1} \rightarrow a_n = r \times r^{10-1} = r \times r^9$ $a_1, ar, \dots, a_{10} = (a_1 \times a_{10})^{\frac{n}{2}} = (r \times r \times r^9)^{\frac{10}{2}}$ $= r^{10} \times r^{90}$
$a_1, a_1q, a_1q^2, \dots$ $a_1q - a_1, a_1q^2 - a_1q, a_1q^3 - a_1q^2$ $a_1(q-1), a_1q(q-1), a_1q^2(q-1)$	$\text{قوسینیت} = \frac{a_1q(q-1)}{a_1(q-1)} = q$
$S_n = \frac{n}{2} (ra + (n-1)d)$ $a_n = a_1 + (n-1)d$ $a_1 + (a_1 + d) + (a_1 + 2d) + \dots + (a_1 + (n-1)d)$ $S_n = \left(\frac{(n-1)n}{2} \right) (d) \rightarrow \frac{n}{2} (ra + (n-1)d)$	$S_n = a \left(\frac{a^n - 1}{a - 1} \right)$ $S_n d = a_1 d + a_1 d^2 + a_1 d^3 + \dots + a_1 d^n$ $S_n = a_1 + a_1 d + a_1 d^2 + \dots + a_1 d^{n-1}$ $S_n d - S_n = a_1 d^n - a_1 \rightarrow S_n (d-1) = a_1 (d^n - 1)$ $\downarrow$ $S_n = a_1 \left(\frac{a^n - 1}{a - 1} \right)$