

$t_n = 5, 9, 13, 17, \dots$ $\underbrace{\quad}_{+2} \quad \underbrace{\quad}_{+2} \quad \underbrace{\quad}_{+2}$ f_{n+1} $f_{x10} + 1 = 21$	۱
$t_n = 4, 10, 16, 18$ $\underbrace{\quad}_{+2} \quad \underbrace{\quad}_{+2}$ f_{n+2} $n_{10} = f_{x10} + 2 = 22$ $n_i = 4$ $S = \frac{n}{2} \times \left[2a_1 + (n-1)d \right] = \frac{4}{2} \times \left[\frac{2 \times 22}{2} + \frac{(4-1) \times 4}{2} \right] = 14$	۲
$1+\sqrt{3}, 2, 3-\sqrt{3}, \dots$ $\underbrace{\quad}_{1-\sqrt{3}} \quad \underbrace{\quad}_{1-\sqrt{3}}$ $d = 1 - \sqrt{3}$ $n_{20} - n_{2r} = 20d = 2(1 - \sqrt{3}) = 2 - 2\sqrt{3}$	۳
$a_n = 5, 3x, 5^{2n}, 5^y$ $5^2, 5x5, 5^5 \rightarrow \frac{5^2 \cdot 5^5 \cdot 5^{125}}{5^2 \cdot 5^5} \checkmark$ $b_n = x, y, y$ $\frac{x+y}{2} = 2 \rightarrow x+y=4$ if $x=1$ $y=3$ $xy = 1 \times 3 = 3$	۴
$\frac{-r}{2} \quad \frac{+r}{2} \quad \frac{+r}{2} \quad \frac{+r}{2}$ $\frac{29x-7}{2}, \frac{29x-1}{2}, \frac{29x}{2}, \dots$ $\underbrace{\quad}_{+2} \quad \underbrace{\quad}_{+2}$ $f_{n+1} = 2 \rightarrow f_{n1} = 2$ $\rightarrow n = \frac{4}{2} = 2$ $d = 2$ $a_2 = a_1 + 2d$ $a_2 = -3 + 4 = 1$	۵

$t_n = r_{n+1}$ $a_n = \frac{r_1}{+r}, \frac{\Delta}{+r}, V, 9, \frac{11}{+r}, 13, 15, \frac{17}{+r}, 19 \rightarrow n_r = 11$ $b_n = \frac{r_1}{+r}, \frac{\Delta}{+r}, 1, \frac{11}{+r}, 13, \frac{17}{+r}, 19$ $\frac{\Delta, 11, 17}{+r} \rightarrow 4n-1 \leq 11$ $4n \leq 45 \quad n \leq 11 \rightarrow n \leq 11$	6
$a_r - d + a_r + a_r + d = 11 \rightarrow a_r = V$ $a_r =$ $a_r - r, a_r, a_r + r = 1.5 \rightarrow a_r = \frac{1.5}{r} = 15$ $a_r - a_r = d \rightarrow 15 - V = 11$ $\frac{a_r - a_r}{r} = \frac{a_1}{1} = (11)$	7
$a_r - d, a_r, a_r + d = 15 \rightarrow a_r = 15$ $1, 5, 9, \dots \quad t_n = r_{n-r}$ $a_r, a_{10} = 15$ $\downarrow$ $a_r + d, a_r + d$ $15 + 10d = 15 \rightarrow d = 0$ $a_1 = 15 \times 10 - 15 = (15)$	8
$S_n = \frac{n}{r} (ra + (n-1)d)$ $S_9 = 9 S_7$ $a_r = a + 9d$ $a_v = a + 4d = 15a$ $\frac{a_r}{a_v} = \frac{15a}{15a} = (1)$ $\frac{a_r}{a_v} = \frac{15a}{15a} = (1)$	9
$a_1 = 11$ $a_v = 15 \rightarrow 4d = \frac{15-11}{r} = 12 \rightarrow d = 3$ $11, 13, \dots$ $a'_r = 11 + r \cdot 3 = 11 + 3r$ $a'_r = 11 + 3r = 11 + 3 \left(\frac{15-11}{r} \right) = 11 + \frac{12}{r}$ $a'_r = 11 + \frac{12}{r} = 15 \rightarrow \frac{12}{r} = 4 \rightarrow r = 3$ $m+1 = 4 \rightarrow m = 3$	10