

آرمنیا کیسینو
کدره دم رنجینه C

$$t_n = \underbrace{5, 9, 13, 17}_{+4} \quad t_n = 5 + (n-1) \cdot 4 = \boxed{4n+1}$$

1- الف

$$t_1 = 5, t_2 = 9, t_3 = 13, t_4 = 17$$

5

$$t_n = \underbrace{4, 10, 16, 22, \dots}_{+6} \quad t_n = 4n+2 \quad S_1 = \frac{1}{2}(t_1+t_2) = 5(4+10) = \boxed{70}$$

2- الف

$$t_2 + t_3 + t_4 + t_5 \Rightarrow t_2 + t_5 = t_3 + t_4 = 14 + 22 = 36$$

$$\rightarrow t_2 + t_5 + t_3 + t_4 = 36 + 36 = \boxed{72}$$

$$t_n = \underbrace{1, \sqrt{2}, 2, \sqrt{3}, \dots}_{+1+\sqrt{2}} \quad t_{2n} - t_{2n-1} = \sqrt{2} \quad \boxed{2-\sqrt{2}}$$

3- 10

$$4 \times \omega^n = \omega^4 + \omega^n \rightarrow \omega^4 = \omega \times \omega^n = \omega^{n+1}$$

4-

$$n+y \leq 5 \rightarrow n+1 \leq 5 \rightarrow n \leq 4 \quad \left. \begin{matrix} n+y \leq 5 \\ y \leq n+1 \end{matrix} \right\} \boxed{n+y \leq 5}$$

$$4(4n-1) \leq 11n-5 \rightarrow 15n \leq 19 \rightarrow n \leq \frac{19}{15}$$

5- 15

$$a_n = -5, 0, 5 \rightarrow a_n = 5n-5 \quad \boxed{a_5 = 20-5 = 15}$$

$$c_n = 4n-1 \rightarrow 4n-1 \leq 11 \quad n \leq 3 \rightarrow \boxed{3}$$

6-

$$a_n = 2n+1 \quad a_2 = 5$$

$$b_n = 5n-1 \quad b_2 = 9$$

20

$$a_1 + a_2 + a_3 = 3a_2 = 21 \rightarrow a_2 = 7$$

$$a+d=7$$

7-

$$a_1 + a_2 + a_3 = 3a_2 = 21 \rightarrow a_2 = 7$$

$$a+d=7$$

$$d=7-a$$

$$a_2 - a_1 + a_1 = a+d$$

$$\frac{a+d}{a} = \frac{7}{-1} = \boxed{-7}$$

25

$$a_1 + a_2 + a_3 = 15 \rightarrow 3a_2 = 15 \rightarrow a_2 = 5$$

8-

$$a_2 + a_3 = 10 \rightarrow 2a_2 + d = 10$$

$$\text{Dik: } 2a_2 + d = 10$$

$$2d = 10 \rightarrow d = 5$$

$$a_1 = a + d = 5 + 5 = \boxed{10}$$

Year Month Date

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$$\frac{9}{4} (a + 4d) = 9 \left(\frac{a+d}{4} \right)$$

-9

$$9a + 36d = 9a + 9d \rightarrow 9d = 19a \rightarrow a = \frac{1}{9}d$$

$$\frac{a_1}{a_n} = \frac{a+19d}{a+4d} = \frac{\frac{1}{9}d + 19d}{\frac{1}{9}d + 4d} = \frac{19\frac{1}{9}d}{4\frac{1}{9}d} = \frac{19}{4}$$

$$\left. \begin{array}{l} a_1 = 11 \\ a_1 + 4d = 55 \end{array} \right\} \rightarrow 4d = 44 \rightarrow d = 11$$

$$a_5 = a + 4d = 11 + 4 \times 11 = 55$$

-10 5

$$b_n = 1, 2, \dots, 10 \rightarrow b_5 = 5 \quad r_n + 4d = 10 \rightarrow d = 1$$

$$d = \frac{10 - 1}{n+1} = 1 \rightarrow n+1 = 10 \rightarrow \boxed{n=9} \rightarrow 10 \text{ terms}$$