

$$t_n = 5, 9, 13, 17, \dots$$

$$t_n = 4n + 1$$

$$b) t_{10} = 4(10) + 1 = 41$$

$$t_n = 4, 10, 16, 22 \rightarrow d_n = 6n + 2$$

$$s_n = \frac{n}{2} [2d_1 + (n-1)d]$$

$$a) s_{10} = \frac{10}{2} [14 + 9d] = 5 [14 + 36] = 5 \times 50 = 250$$

$$b) d_1, d_2, d_3, d_4 = d_5, d_6, d_7, d_8 \Rightarrow \text{جوابی} = d_{19}, d_{20}, d_{21}, d_{22}$$

$$d_{19} + d_{20} + d_{21} + d_{22} = s_{22} - s_{18} = 14 [14 + 36] - (4 [14 + 36]) = 14 [14 + 36] - 4 [14 + 36] = 10 [14 + 36] = 490$$

$$1 + \sqrt{3}, 2, 3 - \sqrt{3} \quad d_{18} - d_{17} = ?$$

$$d_{18} - d_{17} = 2d = 2(1 - \sqrt{3}) = 2 - 2\sqrt{3}$$

$$d_n = 5^x, 3 \times 5^x, 5^y \quad d_2 = 3 \times 5^x = 5^x \times 3 \quad d^y = 5^{x+1} = 5 \times 5^x$$

$$\Rightarrow y = x + 1$$

$$\rightarrow x - y = -1$$

$$b_n = x, y, z \quad z = x + y$$

$$x - y = -1 \quad x - z = 3 \Rightarrow \boxed{x = 1} \Rightarrow \boxed{y = 3}$$

$$x + y = z \Rightarrow \boxed{xy = 3}$$

$$y - x = 4, x - 1, 4x, \dots \quad y - x + 2 = 4x$$

$$x = 2 \Rightarrow x = \frac{1}{2}$$

$$t_2 = 1 = 4x + 2 = 4\left(\frac{1}{2}\right) + 2 = 4 \Rightarrow 4x + 0 = 2\left(\frac{1}{2}\right) + 0$$

$$dn = \sqrt{r} \sqrt{r}, 9 \rightarrow 11 \quad dn = r \cdot n + 1 \rightarrow dr = \omega, d\omega = 11$$

$$bn = \sqrt{r} \sqrt{r}, 11 \rightarrow \dots \quad bn = r \cdot n - 1 \rightarrow r \neq 0, b \neq -1$$

$$T_n = 4n - 1 \rightarrow 0, 11 \leq 4n - 1 \leq 610$$

$$r \leq 4n - 1 \leq 29$$

$$r \leq 4n \leq 40$$

$$\frac{1}{4} \leq n \leq 10 \rightarrow 2 \times 10$$

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$$d_1 + dr + d\mu = r_1 \rightarrow r dr + dr = r dr = r_1 \Rightarrow dr = v$$

$$d_1 + d\mu + d\omega = 19\omega \rightarrow r d\mu + d\mu = r d\mu = 19\omega \Rightarrow d\mu = r \omega$$

$$\Rightarrow d_1 = r_1 - r r = -r_1$$

$$\frac{d\mu - dr + d_1}{d_1} = \frac{r\omega - v + (-r_1)}{-r_1} = \frac{v}{-r_1} = -\frac{1}{r}$$

v

$$d_1 + dr + d\mu = 1\omega \quad d\mu + d\omega = r\omega \quad d_1 + dr + d\mu + d\omega = r\omega$$

$$d_1\omega = r \quad \downarrow \quad r dr = 1\omega$$

$$\Rightarrow dr = \omega$$

$$\omega d\mu = r\omega$$

$$\Rightarrow d\mu = r$$

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$$d_1\omega = d\mu + v d = r + v d = r + v d = r + r_1 = r_9$$

$$S_9 = 9 S_\mu \quad S_9 = f_{10} [r d_1 + \omega d] = 9 \times 11 \omega [r d_1 + r d]$$

$$\downarrow$$

$$9 d_1 + r r d = r r d_1 + r v d$$

$$\frac{d r_9}{d v} = 1$$

$$11 d_1 = 9 d$$

$$\Rightarrow d = r d_1$$

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$$\frac{d r_9}{d v} = \frac{d_1 + 19 d}{d_1 + r d} = \frac{d_1 + r r d_1}{d_1 + r r d_1} = \frac{r r d_1}{r r d_1} = r$$

$$d_1 = 11, d v = r \omega \rightarrow d = \frac{d v - d_1}{v - 1} = \frac{r \omega - 11}{v - 1} = \frac{r + 1}{4} = f$$

$$b_1 = r \omega \quad b_{m+1} + r = 13 \quad \Downarrow \quad \frac{v-1}{v-1} \quad \frac{v-1}{v-1} \quad \frac{r+1}{4} = f$$

$$dn = f n + v \rightarrow df = f(f) + v = r r$$

1.

$$d_1 \quad r \omega, d r, d \mu, d \omega, \dots \quad d f = r r = d_1 + r d = r n + r d$$

$$\Rightarrow r d = r r - r n$$

$$\Rightarrow d = \omega$$

$$d = \frac{13 - r n}{m+1}$$

$$-0 = \frac{13 - r n}{m+1} = \frac{-r \omega}{m+1} \Rightarrow m+1 = \omega$$

$$\Rightarrow m = r$$

$$\text{تعداد واسطه}$$