

13: كذا

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$$a_1 = a_2 = \dots = a_n = 41 - 50 = 21 \Rightarrow d = 7 \Rightarrow a_n = 50 + (n-1)7 = 7n + 13$$

$$7n + 13 = 201 \Rightarrow n = 28$$

$$1, 1, \dots, 99, 99 \quad \frac{99 \times 101}{2} + 1 = 5050$$

$$a_{n+1} + a_{n+2} + a_{n+3} = -4n + 17, \quad a_{14} + a_{15} = ?$$

$$a_{n+2} + a_{n+3} \Rightarrow 2a_{n+2} = -4n + 17 \Rightarrow a_{n+2} = -2n + 8.5$$

$$n = 4 \Rightarrow a_4 = -2 \times 4 + 8.5 = -1$$

$$n = 14 \Rightarrow a_{14} = -2 \times 14 + 8.5 = -24 \quad (-1) + (-24) = -25$$

$$r^{-1} + r^m - r^n = r \times r^{n+1} \Rightarrow r^{m+1} - r^n - r = r \times r^n \Rightarrow r^{m+1} - r^n - r = r^{n+1}$$

$$\Rightarrow m^2 - m - 1 = 0 \Rightarrow (m+1)(m-1) = 0 \Rightarrow m = 1 \text{ or } m = -1 \Rightarrow r^1 = r \Rightarrow n = 2$$

$$r^{-1} + r^2 + r^3 - 1 = 15 + 1 + 2 = 18$$

$$a_{15} - a_1 = 14d = 0 \Rightarrow d = \frac{0}{14} = 0 \quad a_{10} + a_5 = 2a_1 + \frac{10 \times 9}{2}d = 20$$

$$\Rightarrow 2a_1 = -20 \Rightarrow a_1 = -10$$

$$a_{11} = -10 + (10) \left(\frac{0}{14}\right) = -10$$

$$a_{11} + 10d = \frac{1}{14} (a_{11} + 10d) \Rightarrow a_{11} + 10d = \frac{1}{14} (a_{11} + 10d)$$

$$\frac{1}{14} a_{11} - \frac{1}{14} d = 0 \Rightarrow a_{11} = d$$

$$\frac{a_1}{d_1} = \frac{a_1 + d}{d_1} = \frac{d}{d} = 1 \Rightarrow \frac{a_1}{d} = 1 \Rightarrow a_1 = d$$

$$t_n - t_{n-1} = 1 \Rightarrow d = 1 \Rightarrow d = 1$$

$$t_9 - t_0 = (t_9 - t_0)(t_9 + t_0)$$

$$(10)(1t_1 + 40) = 50t_1 + 1500$$

$$t_v = t_1 + 4d = t_1 + 40$$

$$50t_1 + 1500 = 50 \quad t_1 = 30$$

$$\frac{r + \sqrt{r}}{1 + 1} = \frac{1 + \sqrt{r}}{1 + 1} = \frac{1 + \sqrt{r}}{2} = \sqrt{r}$$

$$\frac{r + r}{r + 1} = \frac{r_0}{r + 1} = \frac{10}{r + 1} = d$$

$$a_{n+1} = a_1 + (n+1-1)d$$

$$a_n = r + \frac{(n)(10)}{(n-1)} = 11$$

$$\frac{10n}{(n-1)} = 9 \Rightarrow \frac{n}{n-1} = \frac{9}{10} \Rightarrow 10n = 9n - 9$$

$$10n = 9n - 9 \Rightarrow n = -9$$

در واقع به سادگی
جمله یاب، مانت

$$a_n + a_{n+1} = a_1 + a_2$$

(1-)

$$r + r = r_0 \Rightarrow n = 1$$

$$a_n = r \times a_1$$

$$\Rightarrow a_1 + 7d = r a_1 + 9d$$

$$r a_1 + 5d = 0 \Rightarrow r a_1 = -5d \Rightarrow a_1 = -5d$$

$$a_n = a_1 + (n-1)d = 0$$

$$-5d + (n-1)d = 0 \Rightarrow nd - 5d = 0$$

$$nd - 5d = 0 \Rightarrow n = 5$$

$$\Rightarrow n = 5$$

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