

1^{ام}، 2^{ام}، 3^{ام}

سوال 1

$$t_1 = t_0$$

$$t_n = a_n - b$$

$$\frac{a_1 - t_0}{r} = V$$

سوال 1

$$t_0 = 41$$

$$a_n = a_1 - b$$

سوال 2

$$V_n + r$$

$$r_0 = V_n + r$$

$$1Vd = V_n \rightarrow n = r_0$$

$$V_n + r$$

$$100 \leq V_n + r < 1000$$

سوال 2

$$9V \leq V_n < 99V$$

$$\frac{9V}{V} \leq \frac{V_n}{V} < \frac{99V}{V} = \frac{17.18}{17.18} \leq n < 17.18$$

$$17.18 - 17 + 1 = 1$$

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

سوال 3

$$r(a_1 + nd) \quad r(a_1 + nd) = -4n + 17 \rightarrow a_1 + nd = -4n + 17$$

$$d = -4 \quad a_1 = 17$$

$$a_{17} + a_1 = -4 \cdot 17 + (-10) = -78$$

$$r^x - 1 = r$$

سوال 4

$$r^{x+1} = t_n$$

$$r \times r^{x+1} = r^x - 1 + r^{x+1} - r$$

$$r^{x+1} - r = t_n$$

$$r \times r^{x+1} = r^x + r^{x+1} - r$$

$$\Rightarrow y = r^x$$

$$a_1 - a_r = a_{17} - a_1$$

$$r^{x+1} - (r^x - 1) = (r^{x+1} - r) - r^{x+1}$$

$$(r^x - 1) + r^{x+1} + (r^{x+1} - r) \rightarrow x = 1$$

$$-1 + 14 - 1 = 12$$

سوال ۵:

$$a_{10} - a_{1r} = \Delta \quad a_{10} + a_{1r} = 2\Delta$$

$$\frac{a_{1r} - a_{10}}{r} = -\Delta \quad a_{1r} - a_{10} = -r\Delta$$

$$d = -r\Delta \quad a_1 + a_d + a_1 + 11d = 2\Delta \quad 2a_1 + 10d = 2\Delta$$

$$2a_1 + 10(-\Delta) = 2\Delta \quad 2a_1 = 12\Delta \quad a_1 = \frac{6\Delta}{1} = 6\Delta$$

$$a_1 + 10d = 6\Delta + (-10\Delta) = -4\Delta$$

$$S_{10} = \frac{1}{2} S_{10} + S_{10}$$

سوال ۶:

$$S_{10} = \frac{1}{2} \Delta t_{10} \quad S_{10} = \frac{1}{2} \Delta (a_1 + v_d)$$

$$\Delta t_{10} = \Delta (a_1 + v_d) = \frac{1}{2} \Delta (a_1 + v_d) = \Delta a_1 + \Delta v_d = \frac{1}{2} \Delta a_1 + \Delta v_d$$

$$\Delta v_d = \frac{1}{2} \Delta a_1 \quad \frac{1}{2} = \frac{\Delta a_1}{\Delta v_d} \quad \Delta a_1 + \Delta v_d = \frac{\Delta a_1}{2} + \Delta v_d$$

$$\frac{\Delta a_1}{2} - \Delta a_1 = \frac{\Delta v_d}{2} - \Delta v_d \quad \frac{\Delta a_1}{2} = \frac{\Delta v_d}{2} \quad \Delta a_1 = \Delta v_d$$

$$a_1 = \frac{1}{2} v_d \quad \frac{1}{2} v_d \quad \frac{1}{2} v_d \quad \left(\frac{\frac{1}{2} v_d}{\frac{1}{2} v_d} = \frac{v_d}{v_d} = 1 \right)$$

$$t_a = a_1 + 10d \quad t_a^2 - t_d^2 = (a_1 + 10d)^2 - (a_1 + 10d)^2$$

سوال ۷:

$$t_d = a_1 + 10d \quad = a_1^2 + 40a_1d + 100d^2 - (a_1^2 + 40a_1d + 100d^2) = 0$$

$$r(1 - 4\sqrt{r}), r + \sqrt{r} \quad x + \sqrt{x} - (x - 12\sqrt{x}) = +12\sqrt{x}$$

سوال ۸:

$$\frac{r_1 - r}{r_{n+1} - r + 1} = \frac{r_0}{r_n - r}$$

9 ج 5

$$r_1 n = 11$$

$$\frac{11 - r}{n - 1} = \frac{a}{n - 1} = d \quad \frac{a}{n - 1} = \frac{r_0 - 10}{r_n - r_1}$$

~~از آنجا که~~

$$n = 5$$

$$\cancel{r_1 n - 10} = \cancel{r_1 n - 10} \quad \cancel{r_1 n - 10} = \cancel{r_1 n - 10}$$

1 ~~از آنجا که~~

$r_0, d, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31$

$$d = 2$$

a

$$a_1, n_1 = 11 \rightarrow a_1 + 5d = 11 \quad a_1 = 1 \quad d = 2$$

$$\frac{r_1 - r}{r_n - r} = \frac{r_0}{r_n - r} = 2$$

$$r_0 = 11n - 4 \quad 24 = 11n \quad n = 2$$

$$r_1 n + r_1 n + r = r + 11$$

10 ج 5

$$r_1 n = \frac{n}{r} \quad r_n = \frac{n}{r}$$

$$a_n + a_{n+r} = (a_1 + (n-1)d) + (a_1 + (n+r-1)d) = 2a_1 + (2n+r-2)d = 2(a_1 + (n+1)d)$$

$$\rightarrow 2a_1 + 11d = 2(a_1 + 9d) \rightarrow n+1 = 9 \quad n = 9$$

$$a_n = a_1 + 9d$$

$$a_n = 2a_1$$

$$\rightarrow 12 \rightarrow \text{مساوی صفر} \quad a_1 = 0$$

$$a_1 = -d$$

$$a_1 = a_1 + (r-1)d = -d + (r-1)d = (r-2)d$$

$$r-2 = 0 \rightarrow r = 2 \quad d \neq 0$$