

$\underbrace{a_1 + a_2 + \dots + a_n}_{\frac{n}{r}(a_1 + a_n)} = \frac{1}{r} \underbrace{(a_1 + a_2 + \dots + a_{1+r})}_{\frac{n}{r}(a_1 + a_{1+r})}$ $\frac{n}{r}(ra_1 + rd) = \frac{1}{r} \times \frac{n}{r}(ra_1 + 1rd)$ $ra_1 + 1rd = ra_1 + 1rd$ $rd = rd \rightarrow d = rd$	$\frac{a_r}{a_1} = ?$ $\frac{a_1 + ra_1}{a_1} = \frac{ra_1}{a_1} \times r$	8
$t_n = t_{n-r} + 1 \rightarrow rd = 1 \quad d = \frac{1}{r}$ $\frac{(t_9 - t_0)(t_9 + t_0)}{t_9} = \frac{rd \times rt_9}{t_9} = rd = \frac{1}{r}$		9
$L = \frac{b-a}{n+1} = \frac{r + \sqrt{r} - (r - 12\sqrt{r})}{12} = \frac{r + \sqrt{r} - r + 12\sqrt{r}}{12} = \frac{13\sqrt{r}}{12} = \sqrt{r}$		10
$d = \frac{r(r-1)}{r(r-1)} = \frac{r}{r(r-1)} = \frac{1}{r-1}$ $a_n = a_1 + (n-1)d \rightarrow a_{n+1} = r + n \frac{1}{r-1} = 11$ $n \frac{1}{r-1} = 9 \quad 10n = 9n - 9$ $9 = -n \quad n = -9$	$a_{n+1} = a_{n+1} = 11 \quad a_1 = r$	11
$a_n + a_{n+r} = a_r + a_{1+r} \rightarrow n + n + r = r \quad rn = 12 \quad n = 12$ $a_n = r a_{\frac{n}{r}} \quad a_1 = r a_{\frac{1}{r}} \rightarrow a_1 + rd = r[a_1 + rd] \quad a_1 + rd = ra_1 + rd$ $ra_1 = -rd \quad a_1 = -d \quad a_1 + (n-1)d \quad -d + (n-1)d = 0 \quad n = 2$	$0 = 2 \text{ مد}$	12

برند پرورش

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الکترودینامیک

کلاس / دفتر
۱۶:۳۰ و ۱۸:۳۰

$$a_1 = 4 \quad a_f = 61 \quad a_n = 208$$

$$a_f = a_1 + (f-1)d = 61$$

$$rd = 21$$

$$d = 7$$

$$f + (n-1)r = 208$$

$$r(n-1) = 168$$

$$n-1 = 24$$

$$n = 25$$

$$a_1 = 101$$

$$d = 7$$

$$101, 108, 115, \dots$$

$$101 + (n-1)7 < 1000$$

$$7(n-1) < 899$$

$$7n < 906 \Rightarrow n = 129$$

$$a + c = 2b \rightarrow a + b + c = 3b$$

$$r_{n+r} = -r_n + 12 \rightarrow a_{n+r} = -r_n + 12$$

$$n = 15 \rightarrow a_{15} = -r_{15} + 12 = -12$$

$$a_{15} + a_1 = -12 - 12 = -24$$

$$n = 5 \rightarrow a_5 = -12 + 12 = 0$$

$$a_r + a_{r^n} = 2a_n \quad \frac{r^n - 1}{r - 1} + \frac{r^{r^n} - 1}{r - 1} - 2 = 2 \times \frac{r^n - 1}{r - 1} \quad r^n(r^n + 1) - 2 = 2 \times r^n$$

$$r^n(r^n + 1) = 2 \times r^n + 2 = 2(r^n + 1) \Rightarrow r^n = 2 \Rightarrow n = 2$$

$$a_r = r^n - 1 = 3 \quad a_n = r^{n+1} = 8 \quad a_{12} = r^{12} - 1 = 17 \Rightarrow 3 + 8 + 17 = 28$$

$$a_{12} - a_{10} = 2 \rightarrow rd = 2 \Rightarrow d = 1/5$$

$$a_{21} = ?$$

$$a_{10} + a_{12} = 2d$$

$$a_1 + 9d + a_1 + 11d = 2a_1 + 20d = 2d$$

$$2a_1 = -20$$

$$a_1 = -10$$

$$-10/5 + (20 \times 1/5) = 2$$

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