

نام و نام خانوادگی: ... پاسنامه تشریحی تکلیف شماره ۱۲۷ ... کلاس: ...

$$a_1 = 40 \quad a_n = 41 \quad d = \frac{41-40}{1} = 1 \quad a_n = 40 + (n-1) \cdot 1$$

$$40 + (n-1) \cdot 1 = 120 \quad n = 81$$

$$101, 110, 120, \dots$$

$$a_n = 40 + (n-1) \cdot 1 \quad 40 + (n-1) \cdot 1 \leq 999$$

$$40 + n - 1 \leq 999 \quad n \leq 960$$

$$a_1 + nd + a_1 + (n+1)d + a_1 + (n+2)d = -4n + 12$$

$$3a_1 + nd + nd + d + nd + 2d = -4n + 12$$

$$3a_1 + 3nd + 3d = -4n + 12$$

$$3(a_1 + nd + d) = -4n + 12$$

$$a_1 + nd + d = -\frac{4}{3}n + 4$$

$$d = -\frac{4}{3} \Rightarrow a = 4$$

$$4 + 14(-\frac{4}{3}) + 4 + 7(-\frac{4}{3})$$

$$12 + 22(-\frac{4}{3}) = 12 - \frac{88}{3} = -\frac{56}{3}$$

$$r^{n+1} = \frac{r^n - 1 + r^{n+1} - c}{r} \Rightarrow r^{n+1} = r^n - 1 + r - c$$

$$\Rightarrow r^{n+1} - r^n = r - 1 - c \Rightarrow r^n(r - 1) = r - 1 - c$$

$$\Rightarrow \frac{r^n(r - 1)}{r - 1} = \frac{r - 1 - c}{r - 1} \Rightarrow r^n = \frac{r - 1 - c}{r - 1}$$

$$\Rightarrow \frac{r^n(r - 1)}{r - 1} = \frac{r - 1 - c}{r - 1} \Rightarrow r^n = \frac{r - 1 - c}{r - 1}$$

$$\begin{cases} a_{10} - a_{12} = 20 \\ a_{10} + a_{12} = 120 \end{cases} \Rightarrow 2a_{11} = 10 \Rightarrow a_{11} = 5 \Rightarrow d = \frac{10 - 120}{2} = -55$$

$$a_n = -55n + 50$$

$$\Rightarrow -55 \times 11 + 50 = -605 + 50 = -555$$

$$-55 + 50 = -5$$

$$\frac{d}{dt}(a+0d+a+0d)$$

$$\frac{d}{dt}(a_1+a_2) = \frac{1}{t} \times \frac{d}{dt}(a_1+a_2)$$

$$\frac{d}{dt}a + \frac{d}{dt}a + 1 \cdot d = \frac{d}{dt}a + \frac{1}{t}d + \frac{d}{dt}a + \frac{1}{t}d$$

$$0a + 1 \cdot d = \frac{1}{t}a + \frac{1}{t}d$$

$$\frac{1}{t}a = \frac{1}{t}d \Rightarrow ra = d$$

$$\frac{a_r}{a} = \frac{a+d}{a} = \frac{r_1 a}{a} = \boxed{r}$$

$$t_2 = t_1 + 10 \Rightarrow d = \frac{t_2 + 10 - t_1}{10} = 0$$

$$\frac{(t_2+t_1)(t_2-t_1)}{t_1} = \frac{1 \cdot 10 \times 10}{t_1} = 1 \times 10 \times 10 = \boxed{100}$$

$$d = \frac{1+\sqrt{c} - 1(1-\sqrt{c})}{1^2} = \frac{1+\sqrt{c} - 1 + 1\sqrt{c}}{1^2} = \frac{1\sqrt{c} + 1\sqrt{c}}{1^2} = \boxed{2\sqrt{c}}$$

$$d = \frac{r_1 r_2 - r}{r_1 r_2 - 1} = \frac{c}{r(r_1 - 1)} = \frac{1}{r_1 - 1}$$

$$r \sim c$$

$$a_{n+1} = 11$$

$$r + nd = 19$$

$$\frac{18n}{r_1 - 1} = 9 \Rightarrow 18n - 9 = 18n$$

$$cn = 9 \Rightarrow n = \boxed{c}$$

$$a_n + a_{n+f} = a_c + a_v$$

$$\hookrightarrow n + n + f = c + v$$

$$r_1 + f = r_2 \Rightarrow n = \boxed{1}$$

$$a_n = r a_n$$

$$a_f = r a_f$$

$$a + r d = r a + r d$$

$$\Rightarrow a_r = 0$$