

نام و نام خانوادگی کلاس شماره تکلیف شریعی پاسخنانه

$$t_2 - t_1 = 3d = 21 \Rightarrow d = 7 \Rightarrow 7n + 53$$

$$7n + 53 = 201 \Rightarrow 7n = 148 \Rightarrow n = 21$$

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$$101, 108, 115, \dots, 997$$

$$\frac{997 - 101}{7} + 1 = 129$$

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

$$\Rightarrow (a + (3d)(n+1)) = 4(-n+2) \Rightarrow a + (d)(n+1) = 2(-n+2)$$

$$a_{10} + a_n = 2a + 3d = 2(a + 1.5d) \Rightarrow n = 1.5d$$

$$2(-10.5 + 2) = -17 \Rightarrow a_{10} + a_n = -17$$

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$$2^{n-1} - 1 + 2 - 3 = 2$$

$$\left. \begin{array}{l} 2^n - 1 = 2 \\ 2^{n+1} - 1 = 1 \\ 2^n - 2 = 1 \end{array} \right\} 2^x$$

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$$2 + 2 - 2 = (2^x)(1+2) - 2 = 2 \times 2^x = 2^x - 2 = 2 \Rightarrow 1 - 2^{x-1} = 0 \Rightarrow 2^{x-1} = 1 \Rightarrow x-1 = 0 \Rightarrow x = 1$$

$$t_{12} - t_{10} = 2 \Rightarrow 2d = 2 \Rightarrow d = 1$$

$$t_{10} + t_{12} = 20 \Rightarrow 2t_1 + 20d = 20 \Rightarrow t_1 + 10d = 10 \Rightarrow t_1 + 10 = 10 \Rightarrow t_1 = 0$$

$$\Rightarrow t_1 = -10$$

$$t_{12} = -10 + 20d = -10 + 20 = 10$$

$$\left. \begin{aligned} r(a + (n-1)d) &= ra + r(n-1)d \\ ra + r(n-1)d &= ra + r(n-1)d \end{aligned} \right\} \text{ } \Rightarrow a = \frac{1}{r}d$$

$$\frac{a+d}{a} = \frac{\frac{1}{r}d}{\frac{1}{r}d} = r$$

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$$a + rd = a + k \Rightarrow rd = k \Rightarrow d = \frac{k}{r}$$

$$\begin{aligned} r_1 + a &= (a + rd) - (a + rd) = a + rd + (rd - a - rd - rad) \\ \Rightarrow r_1 + a &= ra + rd + (rd - a - rd - rad) \\ \Rightarrow r_1 + a &= ra + rd + (rd - a - rd - rad) \\ \Rightarrow r_1 + a &= ra + rd + (rd - a - rd - rad) \end{aligned}$$

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

8

$$\begin{aligned} 1 + (n-1)d &= n-1 \quad a_n = a_1 + (n-1)d \Rightarrow r = 1 + ((n-1)-1)d \\ \Rightarrow d &= \frac{r}{n-1} \Rightarrow r = (n-1)d \Rightarrow d = \frac{r}{n-1} \Rightarrow d = \frac{1}{n} \quad n(n-1) \\ r_0 n &= 1(n-1) \Rightarrow r_0 n - r_0 n = 1 \Rightarrow r_0 = 1 \Rightarrow r = 1 \end{aligned}$$

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$$\begin{aligned} a_n + a_{n+r} &= a_r + a_{n+r} \Rightarrow \frac{a}{a} + (n-1)d + \frac{a}{a} + (n+r)d = a + rd + a + rd \\ \Rightarrow r(a + (n+r)d) &= r(a + kd) \quad r(a + (n+r)d) = r(a + kd) \Rightarrow r + r = k \\ n &= k \quad a_n = r \frac{a}{r} \Rightarrow a_n = a \quad a_n = a + rd \quad a_r = a + rd \\ a_k &= a + (k-1)d = 0 \Rightarrow (k-1)d = 0 \Rightarrow k-1 = 0 \Rightarrow k = 1 \end{aligned}$$

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