

کلاس: (هم دختر)

پایه: تشریفاتی: ۱۳

نام خانوادگی: آلاء شادپوری

۲۰

$$t_n = 5, 9, 13, 17, \dots \quad d = 4$$

$$t_n = 4n + 1$$

$$b) t_{10} = 4 \times 10 + 1 \rightarrow t_{10} = 41 \quad \text{جواب}$$

$$t_n = 6, 10, 14, 18, \dots \rightarrow t_n = 4n + 2 \quad d = 4$$

$$S_n = \frac{n}{2} (2a_1 + (n-1)d) \rightarrow S_{10} = \frac{10}{2} (2 \times 6 + (10-1)4) = 5 \times 48 = 240 \quad \text{جواب}$$

$$b) 4 \times 11 = 44 \rightarrow t_{10}, t_{11}, t_{12}, t_{13} \rightarrow 2t_{10} = 2(t_1 + t_{19}) = 2(a + a + 18d) \rightarrow 2(6 + 6 + 18 \times 4) = 2(12 + 72) = 168$$

$$2t_{10} = 2(t_1 + t_{19}) = 4a_2 \quad \text{جواب}$$

$$1 + \sqrt{3}, 2, 3 - \sqrt{3}, \dots \quad d = 1 - \sqrt{3}$$

$$a_{25} - a_{13} = a + (25-1)d - (a + (13-1)d) = 12d = 12(1 - \sqrt{3}) = 12 - 12\sqrt{3}$$

$$a_n = \frac{r^n}{d}, \frac{r^n}{d}, \frac{r^n}{d}, \dots$$

$$a + c = rb \rightarrow d^r + d^y = r(r \times d^r) \rightarrow d^y = \frac{r^2 \times d^r}{d^r - d^r} = \frac{r^2 \times d^r}{d^r - d^r}$$

$$d^y = d^r (r - 1) \rightarrow d^y = d^r \times r \rightarrow d^y = d^{r+1} \rightarrow y = r + 1 \quad *$$

$$x + y = \frac{r \times r}{d} \rightarrow y = r - x \quad \rightarrow r - x = r + 1 \rightarrow 2x = r \rightarrow x = \frac{r}{2}$$

$$y = r - 1 \rightarrow y = r \quad xy = 1 \times r = r \quad \text{جواب}$$

$$2x - r, 2x - 1, 2x \rightarrow a + c = rb \rightarrow 2x - r + 2x = r(2x - 1)$$

$$4x - r = 4x - r \rightarrow 4x = r \rightarrow x = \frac{r}{4}$$

$$x = \frac{1}{2}, -1, \frac{1}{2} \rightarrow -3, 0, 3 \rightarrow d = 3$$

$$a_r = a + rd \rightarrow a_r = -3 + 3 \times 3 \rightarrow a_r = 6 \quad \text{جواب}$$

$$a_n = 3, 5, 7, \dots \rightarrow a = 3, d = 2 \rightarrow 3, 5, 7, 9, 11, 13, 15, 17, \dots$$

$$b_n = 2, 5, 8, \dots \rightarrow a = 2, d = 3 \rightarrow 2, 5, 8, 11, 14, 17, 20, 23, \dots$$

$$a_r = 3 + \frac{19 \times 2}{2} \rightarrow a_r = 21 \quad b_r = 2 + \frac{19 \times 3}{2} \rightarrow b_r = 29 \quad \text{سپس تا ۴۱ عددی رویم}$$

$$a + 6(n-1) \leq 41 \rightarrow 6 + 6n - 6 \leq 41 \rightarrow 6n \leq 41 \rightarrow n \leq 7 \quad \text{۷ عدد مشترک داریم}$$

