

A دهم دضرت

۱۲

شکله، ضریب

$$0, 9, 12, 14$$

$$r_{n+1}$$

الف

$$r(10) + 1 = 61$$

ب

$$4, 6, 14, 18$$

$$S_n = \frac{n}{2} (2a_1 + (n-1)d) = \frac{1}{2} (12 + (9)4) = 24$$

$$r \times 1 = r \rightarrow a_1 + a_2 + a_3 + a_4 + a_5$$

$$(n+2) \rightarrow r(29) + 2 = 118, 112, 106, 100$$

$$r \times 1$$

$$1 + \sqrt{r}, 2, r - \sqrt{r}$$

$$(1 - \sqrt{r})n + 2\sqrt{r}$$

$$\begin{aligned} r \times 1 &\rightarrow (1 - \sqrt{r})r + 2\sqrt{r} = r - r\sqrt{r} + 2\sqrt{r} = r - r\sqrt{r} \\ r \times 2 &\rightarrow (1 - \sqrt{r})2 + 2\sqrt{r} = 2 - 2\sqrt{r} + 2\sqrt{r} = 2 - 2\sqrt{r} \end{aligned} \left. \vphantom{\begin{aligned} r \times 1 &\rightarrow (1 - \sqrt{r})r + 2\sqrt{r} = r - r\sqrt{r} + 2\sqrt{r} = r - r\sqrt{r} \\ r \times 2 &\rightarrow (1 - \sqrt{r})2 + 2\sqrt{r} = 2 - 2\sqrt{r} + 2\sqrt{r} = 2 - 2\sqrt{r} \end{aligned}} \right\} r - 2\sqrt{r}$$

$$b \rightarrow r \times d = r \times d + 2(1 - \sqrt{r})$$

$$a_n = a, r \times a^n, a^y \rightarrow \underbrace{a, r \times a^n, a^y}_{+ r \times a^n + r \times a^n}$$

$$a \times a = a \rightarrow a^{n+1} = a^y \rightarrow r_{n+1} = y$$

$$r_n - y = -1$$

$$b_n = x, y, y$$

$$\begin{aligned} r - n &= y - r \\ r &= y + n \end{aligned}$$

$$r_n - y = -1$$

$$n + y = 6$$

$$r_n = r$$

$$n = 1 \rightarrow y = r$$

$$n y = r$$

$$r_n = 8, r_{n-1}, y_n$$

$$r \left( \frac{1}{r} \right) - 8 = -r$$

$$r_n + b = -r \rightarrow r + b = -r \quad b = -4$$

$$r_{n-1} + r = y_n$$

$$r_n + r = y_n$$

$$r = 8n$$

$$n = \frac{1}{r}$$

$$r_n - 4 \rightarrow r(1) - 4 = 4$$

$$a_n = 2, 5, 8, \dots$$

$$b_n = 1, 5, 9, \dots$$

$$a + (n-1)d < 41$$

$$b + (n-1)d < 59$$

$$a_1 = 2n+1$$

$$a_1 = 2n-1$$

$$a_1 = 2n-1$$

$$a_2 = 21$$

$$a_2 = 59$$

$$4n-1 < 41 \quad (\text{دیس } 7 \text{ جہد } 3 \text{ شرت})$$

$$4n < 42$$

$$n < 10.5$$

$$a - d + a + a + d = 21$$

$$3a = 21 \quad a = 7$$

$$a_1 + a_1 + 2d + a_1 + 2d = 1.5$$

$$3a_1 + 4d = 1.5$$

$$21 + 4d = 1.5$$

$$4d = 1.5 - 21 \rightarrow d = -4.875$$

$$a_3 - a_2 + a_1 = a_1 + 2d - a_1 - d + a_1$$

$$a_1 + d = 7 + 1.5 = 8.5$$

$$\frac{21}{7} = 3 \text{ برابر}$$

$$a - d + a + a + d = 10 \rightarrow 3a = 10 \rightarrow a = \frac{10}{3}$$

$$a + 2d + a + 2d = 10$$

$$2a + 4d = 10$$

$$10 + 4d = 10 \rightarrow d = 0$$

$$3n-1 \rightarrow 3(10) - 1 = 29$$

$$\frac{S_9}{S_7} = \frac{9}{7} \rightarrow \frac{\frac{9}{2}(2a_1 + 8d)}{\frac{7}{2}(2a_1 + 6d)} = \frac{9a_1 + 36d}{7a_1 + 21d} = \frac{9}{7} \rightarrow 7(9a_1 + 36d) = 9(7a_1 + 21d)$$

$$63a_1 + 252d = 63a_1 + 189d$$

$$63a_1 = 63d$$

$$\frac{a_9}{a_7} = \frac{a_1 + 8d}{a_1 + 6d} = \frac{a_1 + 8(2a_1)}{a_1 + 6(2a_1)} = \frac{a_1 + 16a_1}{a_1 + 12a_1} = \frac{17a_1}{13a_1} = \frac{17}{13}$$

$$19, 15, 11$$

$$a = 1$$

$$\frac{19-11}{4} = \frac{8}{4} = 2 = d$$

$$3n+7$$

$$3(4)+7 = 19$$

$$19, 17, 15, 13, 11, 9, 7, 5, 3, 1$$

$$\frac{19-11}{2} = \frac{8}{2} = 4$$

$$(17) \rightarrow 17, 15, 13, 11$$