

(الف) $4n+1$

(ب) $4 \times 10 + 1 = 41$

(۲) الف) $\text{مجموع} = \frac{\text{تعداد} \times (\text{جمله آخر} + \text{جمله اول})}{2} = \frac{(9+41) \times 10}{2} = 250$

$t_{10} = 10 \times 4 + 1 = 41$

$4 \times 8 = 32$ $32 \times 4 + 1 = 129$

جمله هفتم $= 86, 90, 94, 98$

$86+90+94+98 = 368$

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

$t_{25} - t_{24} = 2(1-\sqrt{2}) = 2-2\sqrt{2}$

(۴) $1, 2, 3, 4, \dots \rightarrow 1^2, 2^2, 3^2, 4^2, \dots \rightarrow 1, 4, 9, 16, \dots$

$b_n = 1, 2, 3 \Rightarrow n_y = 1 \times 3 = 3$

$2n-4, 2n-1, 9n \Rightarrow 9n = 2n+4$
 $4n = 4$
 $n = 1$

$-2, 0, 2, 4$

(۵) بی اعداد فرد b_n تا 41 با a_n مشترک است | اعداد فرد جز ۱ $\rightarrow$

$2, 5, 8, \dots, 49$

۷ جمله مشترک دارند

$c_n = 5, 11, 17, \dots$

$c_n = 6n-1 \rightarrow 6n-1 = 41$
 $6n = 42$
 $n = 7$

$$a_r = \frac{r_1}{e} = v$$

$$-r_1, v, r_0$$

$$\frac{v}{-r_1} = \boxed{-\frac{1}{r}}$$

(1)

$$a_r = \frac{1 \cdot d}{e} = r_0$$

$$a_r - a_r + a_1 = r_0 - v + (-r_1) = v$$

$$\frac{1 \cdot d}{e} = d \quad t_r = d$$

$$t_n = r_n - 1$$

(1)

$$1 \cdot d + r_0 = \varepsilon_0$$

$$t_{10} = r_0 - 1 = \boxed{r_9}$$

$$\frac{\varepsilon_0}{d} = \Lambda \quad t_r = \Lambda$$

$$\frac{9}{r} (a_1 + a_9) = \frac{9}{r} (a_r + a_1) \times r$$

(1)

$$r a_1 + 1 d = 9 a_1 + 9 d$$

$$\varepsilon a_1 = r d$$

$$r a_1 = d$$

$$\frac{a_1 + 19(r a_1)}{a_1 + 9(r a_1)} = \frac{r 9 a_1}{1 r a_1} = \boxed{r}$$

$$r d - 11 = r \varepsilon \quad d = \varepsilon$$

new 1, \varepsilon (1)

$$\frac{r \varepsilon}{9} = \varepsilon \quad t_\varepsilon = 11 + 1 r = r r$$

$$\frac{r r - r \Lambda}{r} = d$$

$$r \Lambda, r r, r \Lambda, r r, 1 \Lambda, 1 r$$

$$\textcircled{1} \quad \textcircled{2} \quad \textcircled{3} \quad \textcircled{4} \quad \textcircled{5} \quad \textcircled{6}$$