

$$\frac{1}{r} x^{r^{n-1}} = a x^{r^{n-1}} \quad r = r$$

الف) $\frac{1}{r} \times r^9 = r^8$

5) $\frac{a_{14}}{a_{14}} = \frac{a_{14}}{a_{14}} = 1$

7.) $q_f = q_f^r = \frac{1}{r} \cdot \lambda = r^c \quad \sqrt{k \cdot r^c} = \pm b \quad b = \pm r^c$

$$a_{\perp} = ar' = \frac{1}{r} \times \Delta r = r \Delta \theta$$

$$2) \quad 12A = \frac{1}{r} \times r^{n-1}$$

$$r^{\Lambda} = r^{n-1} \quad \Lambda = n-1 \quad n=9 \quad \text{ممكن}$$

2) $a_D = 12$ $a_A = 94$

$$a_v^r = 12 \quad a_v^v = 94$$

$$\alpha v^9 = \frac{\mu}{\kappa} \times \Delta T = \mu \Delta T$$

$$a \times 14 = 15 \quad \frac{a \sqrt{14}}{\sqrt{14}} = \frac{15}{14} = 1$$

$$a = \frac{15}{14} = \frac{r}{2} \quad r = 1 \quad r = 15$$

ii) $a_1 + a_1^r + a_1^{r^2} + a_1^{r^3} + a_1^{r^4} = 5$

$$a^2 r^1 = r^2 r^2$$

$$a_1 \times a_2 = a_p^r - 9 \leftarrow \textcircled{1}$$

الف $\rightarrow \sqrt{a^2} = a$

$\frac{a}{r} \rightarrow \frac{b}{r}$

$$a_r^t = r \xrightarrow{()^t} a_r^t = 9$$

f) $r^a, r^{\sqrt{2}}, r^b$

$$\sqrt{r^{\Delta}} = r^{\frac{\Delta}{r}}$$

$$a+b \quad 2$$

$$r^a r^b = (r^{\frac{a+b}{2}})^2$$

$$\frac{a}{r} = r/a$$

$$-a + b = \Delta$$

a) $ar^r = 1-21$

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$7x^4 = 21$ (circled) (circled)

$$ar^n = n+1$$

$$n=2 \quad a_{r^1}^r \times a_{r^1}^{r^1} = a^r r^{1r}$$

$$(1-m)(1+m) = 21^r$$

$$\underline{1 - 2x^r = 2x^r}$$

$$1 = 12^2$$

$$\frac{1}{r} = 21^r$$

$$= \frac{\sqrt{y}}{\sqrt{x} \cdot \sqrt{y}} = 21$$

$$1 - \left(-\frac{\sqrt{2}}{r}\right) \rightarrow \oplus$$

$$\frac{1}{\sqrt{2}} \rightarrow \textcircled{1}$$

$$1 - \frac{\sqrt{r}}{r} \rightarrow \textcircled{+}$$



4) $a + ar^r = rA$

تکانه اول

$ar + ar^r = rA$

$a(1+r^r) = rA$

$ar(1+r) = rA$

$ar(1+r) = rA$

$a(1+r)(1-r+r^r) = rA$

$\frac{r}{1-r+r^r} = \frac{rA}{r}$

$rr = r - r^r + r^r$

$0 = r^r - 1 + r$

$r = \frac{1 \pm \sqrt{1 - 4 \times 1 \times r}}{2} = \frac{1 \pm 1}{2}$

$\frac{r}{1-r} = rA$

5) $\frac{a}{r} + a + ar = rA$

$\frac{a}{r} + a + ar = rA$

$\frac{r}{r} + \frac{r}{r} + \frac{r}{r} = rA$

$a = r$

$rA = r + r + r$

$0 = r^r - 1 + r$

$\frac{a}{r} + a + ar = rA$

$\frac{r}{r} + \frac{r}{r} + \frac{r}{r}$

$\frac{r}{r} + \frac{r}{r} + \frac{r}{r}$

6) $a_n = r, 4, 16, \dots$

$r \times r = r$

$\frac{r}{r} = \frac{r}{r}$

S_n

$S_n = a \frac{r^n - 1}{r - 1} = r \frac{r^n - 1}{r - 1} = 49 \times 16$

$\frac{r}{r} = \frac{r}{r}$

7) a, ar, ar^2

$a(r-1) = a(r-1)$

$\frac{a(r-1)}{r} + \frac{a(r-1)}{r} + \frac{a(r-1)}{r}$

$\frac{a(r-1)}{r} + \frac{a(r-1)}{r} + \frac{a(r-1)}{r}$

$a(r-1)$

$a(r-1)$

$$1.) \text{ (ii)} \quad S_n = \frac{n}{r} (ra + (n-1)d)$$

مجموعه

$$\begin{aligned} \text{① } S_n &= a, a+d, a+2d, \dots, a+(n-1)d \\ S_n &= a+(n-1)d, a+(n-2)d, \dots, a \end{aligned}$$

$$r \times S_n = \underbrace{ra + (n-1)d + ra + (n-1)d + \dots + ra + (n-1)d}_{n \text{ terms}}$$

$$r \times S_n = n \times (ra + (n-1)d)$$

$$S_n = \frac{n}{r} \times (ra + (n-1)d) \quad \checkmark$$

$$\rightarrow S_n = a \times \frac{q^n - 1}{q - 1}$$

$$\begin{aligned} \text{② } S_n &= a, ar, ar^2, \dots, ar^{n-1} \\ rS_n &= ar, ar^2, ar^3, \dots, ar^n \\ S_n - rS_n &= a - ar^n \\ S_n(1-r) &= a(1-r^n) \\ S_n &= a \times \frac{1-r^n}{1-r} \quad \checkmark \end{aligned}$$