

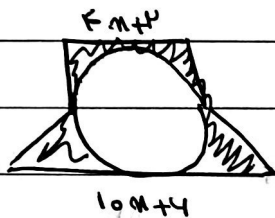


مساحت ذریعہ = $4m^2 + 10m + 4$

$$4m^2 + 10m + 4 = 2m^2 + 2m + 2m^2 + 2m + m + 1 = 4m^2 + 5m + 3$$

$$\text{Column} = \frac{(4m^2 + 10m + 4) \times 2}{2} = \frac{(2m^2 + 2m + 2m^2 + 2m + m + 1) \times 2}{2} = 4m^2 + 10m + 4$$

$$= 4m^2 + 10m + 4$$



مساحت ذریعہ = $4m^2 + 16m + 16$

$$\text{Column} = (2m+2)(2m+2) = 4m^2 + 8m + 4m + 4 = 4m^2 + 12m + 4$$

$$\text{Column} = \frac{(4m^2 + 16m + 16) \times 2}{2} = \frac{8m^2 + 32m + 32}{2} = 4m^2 + 16m + 16$$

$$4m^2 + 16m + 16$$

$$\text{Column} = (2m+2)(2m+2) \times 2 = (4m^2 + 8m + 4m + 4) \times 2 = 8m^2 + 16m + 8$$

$$\text{Column} = 4m^2 + 16m + 16 + 8m^2 + 16m + 8 = 12m^2 + 32m + 24$$

$$\text{Column} = 12m^2 + 32m + 24 - (8m^2 + 16m + 8) = 4m^2 + 16m + 16$$

$$10 \times (4m^2 + 16m + 16) + 11 \times 2 + 1 = 40m^2 + 160m + 160 + 22 + 1 = 40m^2 + 160m + 183$$

$$\overline{ab} = \overline{ba} - 2V$$

سؤال 10

$$10a + b = 10b + a - 2V$$

$$10a + b - 10b - a = -2V$$

$$9a - 9b = -2V \rightarrow 11b - 9b = -2V \rightarrow 9b = -2V$$

$$b = -\frac{2}{9}V$$

$$a = 2b = 2\left(-\frac{2}{9}V\right) = -\frac{4}{9}V$$

$$\overline{ab} = 10a + b = 10 \times \left(-\frac{4}{9}V\right) - \frac{2}{9}V = -\frac{42}{9}V$$

$$a^5 - b^5 - 2^5 - 2^5 = (-1)^5 - (-2)^5 - 2^5 - 2^5$$

سؤال 11

$$= 1 - 1 - 2 - 2 = -2$$

$$\frac{10^{a+1} \times 10^{b+2}}{10^{a+1} \times 10^{b+2}}$$

$$= \frac{10^{a+1+b+2}}{10^{a+1+b+2}}$$

$$= \frac{10^{1+2}}{10^{1+2}}$$

سؤال 12

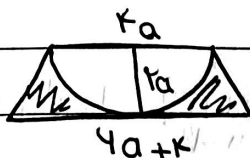
$$= \frac{11}{14}$$

$$\text{جواب } 2^m \times 2^n = 2^{\left(\frac{m \times n}{5}\right)} = 2^8$$

سؤال 13

$$\begin{aligned} \text{جواب } 2^{m+1} + 2^{n+1} &= 2^m + 2^n + 2 \\ &= 2(m+n+1) = 25 \end{aligned}$$

$$\text{جواب } 2^{m+1} + 2^n = 2^n + 2^{m+1} = 2(n+m) + 1 = 25 + 1$$



مسألة 14 - مسألة 15

سؤال 14

$$10a^2 + 2a - 4a^2 = 6a^2 + 2a$$

$$\text{مسألة 15} = \frac{(4a+K+Ka) \times Ka}{2} = \frac{(10a+K) \times Ka}{2} = \frac{10a^2 + 10aK}{2}$$

$$\rightarrow 10a^2 + 10aK$$

$$\text{مسألة 16} = \frac{Ka \times Ka \times K}{2} = \frac{K^3}{2}$$

SOBHAN

$$P_n + P_{n+1} = 4$$

22922 سؤال 14

$$P_n + 1 = 4 \rightarrow P_n = 4 - 1 = 3 \rightarrow n = 11$$

$$P(11) = 22$$

$$P_{n+1} + P_n + P_{n-1} + P_{n-2} + P_{n-3} = 111$$

سؤال 11

$$11n + 14 = 111 \quad 11n = 111 - 14 \Rightarrow n = 9$$

$$9 \times 9 + 14 = \boxed{95}$$

$$\frac{1}{k} n + 4 = 4 \Rightarrow \frac{1}{k} n = 0 \Rightarrow n = 0$$

سؤال 19

$$\frac{\omega^a(12) - \omega^a \times \omega^b}{\omega^a \times \omega} = \frac{\omega^a(12 - 12\omega)}{\omega^a \times \omega} = \frac{-12\omega}{\omega}$$

سؤال 20

$$\text{سؤال 21} \quad \left(\frac{n}{v} - \frac{n+1}{1k} = \omega + \frac{1}{v} n \right) \times 1k$$

سؤال 21

$$P_m - (m+1) = V_0 + Km \Rightarrow P_m - m - 1 = V_0 + Km$$

$$Km = V_0 \Rightarrow m = \frac{V_0}{K} = 1$$

$$\text{سؤال 22} \quad (n-1)^2 - (n+1)^2 = (n^2 - 2n + 1) - (n^2 + 2n + 1)$$

$$n^2 - 2n + 1 - n^2 - 2n - 1 = -4n$$

$$(n-1)^2 = (n-1)(n-1) = n^2 - n - n + 1 = n^2 - 2n + 1$$

$$(n+1)^2 = (n+1)(n+1) = n^2 + n + n + 1 = n^2 + 2n + 1$$

$$\text{سؤال 23} \quad (a-k)(a+k) = a^2 - ka - ka + k^2 = a^2 - 2ka + k^2$$

$$\text{سؤال 24} \quad (n+v)^2 - n^2 + 4n = n^2 + 2nv + v^2 - n^2 + 4n = 2nv + v^2 + 4n$$

SOBHAN

$$(n+v)^2 = (n+v)(n+v) = n^2 + vn + vn + v^2 = n^2 + 2vn + v^2$$

$$8) \frac{r}{k} (kx - yz + 1xz) - \frac{a}{k} (kx - rzy + ryz)$$

$$kx - rzy + 1xz - kx + rzy - ryz = - \cancel{kx} - ryz + rzy$$

$$> kx - r(m + zy) - r(m^r - my) - kx - r m^r - rmy - r m^r$$

$$+ rmy = - r m^r - rmy + kx$$

$$\rightarrow 8) (a+1)(b+1)(c+1) = abc + ab + ac + bc + a + b + 1$$

$$(a+1)(b+1) = ab + a + b + 1$$

$$(ab + a + b + 1)(c+1) = abc + ab + ac + a + bc + b + c + 1$$

$$9) (k^r a^r b^r c^r)^k = (k^r a^r b^r c^r)^r = r k^r a^r b^r c^r = r k^r a^r b^r c^r = r k^r a^r b^r c^r$$

$$i) \frac{k^r a^r b^r x^a}{a^r b^r x^a} \frac{r^a b^r x^b}{a^r b^r x^b} = \frac{k^r a^r b^r - r^a b^r}{a^r b^r} = \frac{a^r b^r}{a^r b^r} = a^r b^r$$

$$\text{con } kx - r m^r y^r z^r - kx + r m^r y^r z^r - r m^r y^r z^r = r m^r y^r z^r (k m y z^r - r y^r - r m z^r)$$

$$j) \frac{k m^r y^r - r m^r y^r}{r m y^r - 1 m^r y} = \frac{r m^r y^r (y^r - r m)}{r m y^r (y^r - r m)} = \frac{r}{r} m y$$

$$c) \frac{k x r^a - r x r^a}{r x r^a - 1 x r^a} = \frac{r^a (kx - rx)}{r^a (r - 1)} = \frac{1 r}{r} = 1$$

$$> k(m-1)^r + r(m-1)^r + (m-1)^r = (m-1)^r (k(m-1)^r + r(m-1) + 1)$$

$$d) m^r (m-y)^r y^r - r m^r (m-y) y^r = m^r (m-y) y^r ((m-y)^r - r y^r) \text{ SOBHAN}$$