

Subject .

Year.

Month.

Day.

$$(1! + 2! + 3! + \dots + 98!) (2! + 3! + \dots + 99!) (3! + 4! + \dots + 100!)$$



نقطہ ۱۱، ۱۲، ۱۳ وجود عوامل ۲، ۳



نقطہ ۲۱، ۲۲، ۲۳ وجود عوامل ۲، ۳

$$1! + 2! + 3! + \dots + 98! \rightarrow \text{مکان ۲}$$

$$2! + 3! + 4! + \dots + 99! \rightarrow \text{مکان ۶}$$

$$4! + 5! + 6! + \dots + 100! \rightarrow \text{مکان ۲}$$

$$\text{الف)} \int \frac{1}{x^2 \sqrt{x}} \cdot \int \frac{1}{(1+x+2\sqrt{x})^2} \cdot \int \frac{1}{(8+2\sqrt{x})^2} \cdot \int \frac{1}{(2(\sqrt{x}+1))^2} = \sqrt{2}$$

$$\text{ب)} \left(\frac{\sqrt{2} + \sqrt{8}}{\sqrt{10} + 2} \right) (\sqrt{2} - \sqrt{8} - \sqrt{2} + \sqrt{8}) = \frac{\sqrt{2} + \sqrt{8}}{(\sqrt{2})(\sqrt{2} + \sqrt{8})} (\sqrt{2} - \sqrt{8} - \sqrt{2} + \sqrt{8})$$

$$\Rightarrow \frac{(\sqrt{2} - \sqrt{8} - \sqrt{2} + \sqrt{8})}{(\sqrt{2} - \sqrt{8} + \sqrt{2} + \sqrt{8})} = \frac{0}{2(\sqrt{2} - \sqrt{8} + \sqrt{2} + \sqrt{8})} = \frac{0}{2(\sqrt{2} - 1) + (\sqrt{2} + 1)} = 1$$

$$\text{الف)} \frac{\sqrt{8} + \sqrt{2}\sqrt{2}}{8 - \sqrt{2}} = 2 \left(\frac{1}{\sqrt{2}} - 1 \right) \cdot \frac{2\sqrt{2} + \sqrt{2}}{8 - \sqrt{2}} = \frac{2}{8 - \sqrt{2}} = \frac{2}{8 - \sqrt{2}} \cdot \frac{8 + \sqrt{2}}{8 + \sqrt{2}} = \frac{2(8 + \sqrt{2})}{64 - 2} = \frac{2(8 + \sqrt{2})}{62} = \frac{8 + \sqrt{2}}{31}$$

$$\frac{(2\sqrt{2} + \sqrt{2})}{8 - \sqrt{2}} \cdot \frac{(\sqrt{2} + \sqrt{2})}{(\sqrt{2} + \sqrt{2})} = \frac{2}{\sqrt{2} - 1} \cdot \frac{(\sqrt{2} + 1)}{(\sqrt{2} + 1)} = \frac{2(\sqrt{2} + 1)}{2 - 1} = 2(\sqrt{2} + 1) = 2\sqrt{2} + 2$$

$$\text{ب)} \frac{\sqrt{2}\sqrt{2} - 1}{8 + \sqrt{2}} + (\sqrt{2} - \sqrt{2})^{-1} \cdot \frac{(\sqrt{2} - 1)}{(8 + \sqrt{2})} \cdot \frac{(8 - \sqrt{2})}{(8 - \sqrt{2})} + \frac{1}{2 - \sqrt{2}} \cdot \frac{(2 + \sqrt{2})}{(2 + \sqrt{2})} =$$

$$\frac{12\sqrt{2} - 9 - 8 + \sqrt{2}}{13} + \frac{(2 + \sqrt{2})}{1} = \frac{12\sqrt{2} - 17 + \sqrt{2}}{13} + \frac{2 + \sqrt{2}}{1} = \frac{12\sqrt{2} - 17 + \sqrt{2} + 26 + 13\sqrt{2}}{13} = \frac{14\sqrt{2} + 9}{13}$$

$$\text{الف)} \frac{(\sqrt{2} + \sqrt{2})}{\sqrt{2} - \sqrt{2}} = 2 \cdot \frac{(\sqrt{2} + \sqrt{2})}{(\sqrt{2} - \sqrt{2})} = 2 \cdot \frac{(\sqrt{2} + \sqrt{2})}{(\sqrt{2} - \sqrt{2})} \cdot \frac{(\sqrt{2} + \sqrt{2})}{(\sqrt{2} + \sqrt{2})} = 2 \cdot \frac{(\sqrt{2} + \sqrt{2})^2}{(\sqrt{2} - \sqrt{2})(\sqrt{2} + \sqrt{2})} = 2 \cdot \frac{(\sqrt{2} + \sqrt{2})^2}{2 - 2} = \frac{2(\sqrt{2} + \sqrt{2})^2}{2 - 2} = \frac{2(2 + 2\sqrt{2} + 2)}{2 - 2} = \frac{2(4 + 2\sqrt{2})}{2 - 2} = \frac{8 + 4\sqrt{2}}{2 - 2} = \frac{8 + 4\sqrt{2}}{0}$$

$$2 \quad 15 \quad \sqrt{x^2 - 5x + 6} \quad 2 \quad 15 \quad \sqrt{x^2 - 5x + 6} \quad 2 \quad 15$$

$$x^u \left(\frac{1}{\varepsilon} + \frac{1}{\varepsilon} + 1 + 5 + 8 + 1 \right) \quad x^u \left(\frac{95}{\varepsilon} \right)$$

$$\frac{4(1-\sqrt{5})}{2} = \underline{2-2\sqrt{5}}$$

$$(\sqrt{u+a} - \sqrt{u-e})(\sqrt{u+a} + \sqrt{u-e}) = c(\sqrt{u+a} + \sqrt{u-e})$$

$$\rightarrow \cancel{\sqrt{u+a}} - \cancel{\sqrt{u-e}} = c(\sqrt{u+a} + \sqrt{u-e}) \Rightarrow a + e = c(\sqrt{u+a} + \sqrt{u-e})$$

$$\rightarrow \sqrt{u+a} + \sqrt{u-e} = \frac{a}{c} + c \quad , \quad \frac{a}{c} + c - c = \frac{a}{c}$$