

$$\frac{\sqrt{1+\sqrt{r}} + \sqrt{\sqrt{r}-1}}{\sqrt{\sqrt{r}-1}} \Rightarrow \frac{(\sqrt{r+1} + \sqrt{r-1}) \times \sqrt{\sqrt{r}+1}}{\sqrt{\sqrt{r}-1}} \Rightarrow \frac{\sqrt{r+1} + \sqrt{r-1}}{\sqrt{r-1}} \quad (ع)$$

$$(\sqrt{1+\sqrt{r}} + \sqrt{\sqrt{r}-1})(\sqrt{\sqrt{r}+1}) \rightarrow r + \sqrt{r} + \sqrt{r} + \sqrt{r} + r + \sqrt{r} - \sqrt{r} - \sqrt{r} = 7$$

$$4 - r\sqrt{r} - r = r - r\sqrt{r}$$

$$\frac{r}{r} \times r \times r^{\frac{1}{2}} \times \sqrt{r} \rightarrow r^{\frac{1}{2}} + \frac{r}{r} + \frac{r}{r} = \frac{r^{\frac{3}{2}}}{r} \rightarrow r \times r = 1r \quad (ب)$$

$$\frac{r^a \left(1 + r^2 + r^4 + r^6 + r^8 + r^{10}\right)}{r^{a-r} \left(1 + r + r^2 + r^3 + r^4 + r^5 + r^6\right)} \rightarrow \frac{r^a \left(1 + \left(\frac{r^2}{r} - 1\right)\right)}{r^{a-r} \left(1 + \left(\frac{r^2}{r} - 1\right)\right)} \Rightarrow \frac{r^a (r^{\frac{1}{2}})}{r^{a-r} (r^{\frac{1}{2}})} = r^1 \rightarrow$$

$$\frac{r^a \times r^{\frac{1}{2}}}{r^{a-r} \times r^{\frac{1}{2}}} = \frac{r^a \times r^{-1}}{r^{a-r}} \rightarrow \frac{r^{a-1}}{r^{a-r}} = 1 \quad a-r=0 \rightarrow a=r$$

نہی کے لئے

$$(a+b)^r (a-b)^r - (a+b)(a-b)(a-b) \rightarrow (a^r - b^r)^r \rightarrow a^r + b^r - r a^r b^r \quad (د)$$

$$\sqrt{r} + r + \sqrt{r} - r - r(\sqrt{r} - r) \rightarrow r\sqrt{r} - r\sqrt{r} \rightarrow r(\sqrt{r} - r)$$

$$\frac{r(\sqrt{r}-r)}{r-\sqrt{r}} \rightarrow \frac{r(\sqrt{r}-r)}{r-\sqrt{r}} \rightarrow \frac{r(\sqrt{r}-r)(r+\sqrt{r})}{1} = r + \sqrt{r}$$

$$\left(\left(a + \frac{1}{a}\right)^r - r\right)^r \rightarrow \left(a + \frac{1}{a}\right)^r \rightarrow a^r + \frac{1}{a^r} + r = r^r \quad (و)$$

$$a = \sqrt{r - r\sqrt{r}} \rightarrow \sqrt{r - r\sqrt{r}} = \sqrt{r - \sqrt{r}} \quad (r - \sqrt{r})^r = r^r \rightarrow$$

$$\frac{(r + \sqrt{r})^r}{(r - \sqrt{r})^r} = 1$$

$$\sqrt{r - \sqrt{r}} + \sqrt{r + \sqrt{r}} = 1 \Rightarrow 1 \Rightarrow r = 1 \Rightarrow r^r = 1 \Rightarrow r = 1$$

الرضع بحملهم
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$$\textcircled{7} \quad \sqrt[3]{\frac{1}{\epsilon + \sqrt{\epsilon}}} \times \sqrt[3]{(1 + \sqrt{\epsilon})^3} = \sqrt[3]{\frac{(1 + \sqrt{\epsilon})^3}{\epsilon + \sqrt{\epsilon}}} = \sqrt[3]{\frac{\sqrt{\epsilon} + \sqrt{\epsilon}}{\epsilon + \sqrt{\epsilon}}} = \sqrt[3]{1} = 1$$

$$\frac{(\sqrt{r+2})^{\frac{1}{2}}}{0-\sqrt{2}} - \frac{1}{\sqrt{2}-1} = \frac{-\sqrt{r+2}}{\sqrt{2}} - \frac{1}{\sqrt{2}-1}$$

$$\sqrt{2} + \sqrt{3} + \sqrt{4} + \sqrt{5} + \sqrt{6} + \sqrt{7} + \sqrt{8} + \sqrt{9} + \sqrt{10} + \sqrt{11} + \sqrt{12} + \sqrt{13} + \sqrt{14} + \sqrt{15} + \sqrt{16} + \sqrt{17} + \sqrt{18} + \sqrt{19} + \sqrt{20} + \sqrt{21} + \sqrt{22} + \sqrt{23} + \sqrt{24} + \sqrt{25} + \sqrt{26} + \sqrt{27} + \sqrt{28} + \sqrt{29} + \sqrt{30} + \sqrt{31} + \sqrt{32} + \sqrt{33} + \sqrt{34} + \sqrt{35} + \sqrt{36} + \sqrt{37} + \sqrt{38} + \sqrt{39} + \sqrt{40} + \sqrt{41} + \sqrt{42} + \sqrt{43} + \sqrt{44} + \sqrt{45} + \sqrt{46} + \sqrt{47} + \sqrt{48} + \sqrt{49} + \sqrt{50} + \sqrt{51} + \sqrt{52} + \sqrt{53} + \sqrt{54} + \sqrt{55} + \sqrt{56} + \sqrt{57} + \sqrt{58} + \sqrt{59} + \sqrt{60} + \sqrt{61} + \sqrt{62} + \sqrt{63} + \sqrt{64} + \sqrt{65} + \sqrt{66} + \sqrt{67} + \sqrt{68} + \sqrt{69} + \sqrt{70} + \sqrt{71} + \sqrt{72} + \sqrt{73} + \sqrt{74} + \sqrt{75} + \sqrt{76} + \sqrt{77} + \sqrt{78} + \sqrt{79} + \sqrt{80} + \sqrt{81} + \sqrt{82} + \sqrt{83} + \sqrt{84} + \sqrt{85} + \sqrt{86} + \sqrt{87} + \sqrt{88} + \sqrt{89} + \sqrt{90} + \sqrt{91} + \sqrt{92} + \sqrt{93} + \sqrt{94} + \sqrt{95} + \sqrt{96} + \sqrt{97} + \sqrt{98} + \sqrt{99} + \sqrt{100}$$

$$\frac{-1 + \sqrt{13} \sqrt{13} (2 - \sqrt{13})}{-1 + \sqrt{13}} = \frac{13(2 - \sqrt{13})}{13} = 2 - \sqrt{13}$$

$$A = \sqrt[2]{r^2} = r^{\frac{1}{2}} \times r^{\frac{1}{2}} \rightarrow r^{\frac{2}{2}} = r^1 = r = A$$

$$\sqrt{\frac{1}{r^2} - \frac{1}{r}} = \sqrt{\frac{1}{r}} = \left(\frac{1}{r}\right)^{\frac{1}{2}}$$

$$r^{\frac{1}{2}} \times \frac{1}{r^{\frac{1}{2}}} = \sqrt{r} \rightarrow a \rightarrow r^{\frac{1}{2}} \times a^{\frac{1}{2}} = r$$

$$a^{-\frac{1}{2}} = r^{\frac{1}{2}} \rightarrow a^{-1} = r^1 \rightarrow a = \frac{1}{r^1} = \frac{1}{r}$$

$$\frac{1}{r^{\frac{1}{2}}} = \frac{a^{\frac{1}{2}}}{r} \quad d = \frac{1}{\sqrt{r}} = a = \frac{1}{r}$$

$$\frac{1}{a} = \frac{1}{\frac{1}{r}} = r = \frac{a^{\frac{1}{2}}}{r^{\frac{1}{2}}} \rightarrow r^{\frac{1}{2}} = a^{\frac{1}{2}} \rightarrow r = a$$

$$r(1-\sqrt{r}) = \frac{r \times r(1-\sqrt{r})}{r} = \frac{r^2(1-\sqrt{r})}{r} \leftarrow \frac{r^2(1-\sqrt{r})}{r^{\frac{1}{2}}(1-\sqrt{r})} \leftarrow \frac{r^{\frac{3}{2}}(1-\sqrt{r})}{(1-\sqrt{r})}$$

$$\sqrt{r+a} = \sqrt{r+\frac{1}{r}} \Rightarrow r+a = \left(r+\frac{1}{r}\right) + \left(r+\frac{1}{r}\right) + r \rightarrow (1.)$$

$$r+a = r + \frac{1}{r} \rightarrow a = \frac{1}{r} \rightarrow \frac{1}{r} = \sqrt{r+\frac{1}{r}} \rightarrow r+\frac{1}{r} = \frac{1}{r^2} \rightarrow r+\frac{1}{r} = \frac{1}{r^2}$$

$$\sqrt{r+a} + \frac{1}{r} = \frac{1}{r} \rightarrow r+a = \frac{1}{r} + \frac{1}{r} - a \rightarrow \sqrt{r+a} = \frac{2}{r} - a \rightarrow \sqrt{r+a} = \frac{2}{r} - a$$

$$\frac{a^2 - 1(r+a+\frac{1}{r})}{15} \Rightarrow \frac{(a-\frac{1}{r})^2}{15} = \frac{r(a-\frac{1}{r})}{r}$$

$$\sqrt{r+a} + \sqrt{r-\frac{1}{r}} = r = 0 \rightarrow \sqrt{r+\frac{1}{r}} + r + \sqrt{r-\frac{1}{r}} - r = \sqrt{r+\frac{1}{r}} - \sqrt{r-\frac{1}{r}}$$

$$\sqrt{r+a} = \sqrt{r-\frac{1}{r}} + r \quad \sqrt{r+a} + \sqrt{r-\frac{1}{r}} - r = r \sqrt{r-\frac{1}{r}} = r \sqrt{\frac{a}{r}} = \left(\frac{a}{r}\right)^{\frac{1}{2}}$$