

ادین پور میں

11/28

$$A^T = I \quad A^* \leadsto A = -I$$



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$$t = 4\sqrt{4} + 1 \cdot \sqrt{2}$$

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

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

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

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$$(\sqrt{x+a} - \sqrt{x-\epsilon})(\sqrt{x+a} + \sqrt{x-\epsilon}) = 10$$

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$$\frac{x+a - x+\epsilon}{\sqrt{x+a} + \sqrt{x-\epsilon}} \xrightarrow{\epsilon \rightarrow 0} \frac{a}{\sqrt{x+a} + \sqrt{x-\epsilon}} \rightarrow \frac{a}{r} + r$$

$$\sqrt{x+a} + \sqrt{x-\epsilon} - r = \boxed{\frac{a}{r}}$$

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$$\sqrt{a} = r\sqrt{r}(\sqrt{a^{1/r}}) \rightarrow \sqrt{a} = r\sqrt{r} \cdot a^{\frac{1}{r}} \rightarrow \frac{1}{r\sqrt{r}} = a^{\frac{1}{r}} \Rightarrow a = \frac{1}{r^{\frac{3}{2}}} \Rightarrow \frac{1}{a} = r^{\frac{3}{2}}$$

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

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

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$$(\sqrt{r-\sqrt{a}} - \sqrt{r+\sqrt{a}})^2 = r - \sqrt{a} + r + \sqrt{a} - 2\sqrt{r^2 - a} = 4 - r = r$$

$$\rightarrow b^2 = r \xrightarrow{b < 0} b = -\sqrt{r} \rightarrow \frac{1}{\sqrt{r}} \times (-\sqrt{r}) = -1$$

$$(a^r + b^r - rab)^r = (a-b)^r$$

$$(a^r + b^r + rab)^r = (a+b)^r \rightarrow (a^r - b^r)^r$$

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$$(\sqrt{\sqrt{4}-r} + \sqrt{\sqrt{4}+r})^r = [\sqrt{4-r} + \sqrt{4+r} - r\sqrt{4-r}]^r = (r\sqrt{4} - r\sqrt{r})^r$$

$$r \times 1 \times \sqrt{1r} = 3r - 14\sqrt{r} = 14(r - \sqrt{r}) \rightarrow \boxed{r = 14}$$