

هم بیان A تکلیف ۲۱

«نام خدا»

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۱- توضیح عبارت اول، از ۵ به بعد یکان ۵ می باشد زیرا در ضرب آنها

(۲)

عایل های ۲ و ۱ و در عبارت دوم نیز از ۶ به بعد یکان ۶ می باشد همان

دلیل پس $\boxed{2}$ ، $\boxed{4}$ ، 6×7 ، $\boxed{7}$ ، $1 + 6 = 7$ ، $1! + 3! = 4$

$2! + 4! = 2 + 24 = 26$ ، $\boxed{26}$

۲- (۲)
$$\frac{1}{\sqrt[4]{4+\sqrt{7}}} \cdot \sqrt{1+\sqrt{7}} = \left(\frac{1}{4+\sqrt{7}} \right)^{\frac{1}{4}} \times (1+\sqrt{7})^{\frac{1}{2}} \times (1+\sqrt{7})^{\frac{1}{4}}$$

$$= \left(\frac{(1+\sqrt{7})^2}{4+\sqrt{7}} \right)^{\frac{1}{4}} = (2)^{\frac{1}{4}} = \sqrt[4]{2} \quad \checkmark$$

۱-
$$\frac{(\sqrt{2}+\sqrt{5})}{\sqrt{6}+2} (\sqrt{3}-\sqrt{5}-\sqrt{3+\sqrt{5}}) = \boxed{-1}$$

$$\frac{\sqrt{2}+\sqrt{5}}{\sqrt{2}(\sqrt{5}+\sqrt{2})} \cdot \frac{1}{\sqrt{2}}$$

$$(\sqrt{3}-\sqrt{5}-\sqrt{3+\sqrt{5}})^2 = 3 - \sqrt{5} + 3 + \sqrt{5} - 2\sqrt{9-5}$$

$$= -\sqrt{2} - \frac{-\sqrt{2}}{\sqrt{2}} = -1 \quad \checkmark$$

Subject.

الف) $\frac{\sqrt{1} + \sqrt{25}}{0 - \sqrt{4}} \times \frac{0 + \sqrt{4}}{0 + \sqrt{4}} = \frac{1\sqrt{2} + 9\sqrt{2} + 10\sqrt{2} + 4\sqrt{2}}{19}$

$= \sqrt{2} + \sqrt{2} / -2 \times \frac{1}{\sqrt{2} - 1} \times \frac{\sqrt{2} + 1}{\sqrt{2} + 1} = -\sqrt{2} - 1$

$\sqrt{2} + \sqrt{2} - \sqrt{2} - 1 = \sqrt{2} - 1$ ✓

ب) $\frac{2\sqrt{2} - 1}{2 + \sqrt{2}} \times \frac{2 - \sqrt{2}}{2 - \sqrt{2}} = \frac{12\sqrt{2} - 12}{12} = \sqrt{2} - 1$

$\frac{1}{2 - \sqrt{2}} \times \frac{2 + \sqrt{2}}{2 + \sqrt{2}} = \frac{2 + \sqrt{2}}{1}$

$\sqrt{2} - 1 + 2 + \sqrt{2} = 1 + 2\sqrt{2}$ ✓

Subject.

$$\text{ان) } \frac{\sqrt{1+\sqrt{3}} + \sqrt{\sqrt{3}-1}}{\sqrt{2}-1} \times \frac{\sqrt{2}+1}{\sqrt{2}+1} = \frac{\sqrt{4}(\sqrt{2}+1)}{(\sqrt{2}+1)(\sqrt{2}-1)} - 1 \quad (1)$$

$$\sqrt{4}(\sqrt{2}+1) - 1 = 2\sqrt{2} + \sqrt{4} - 1$$

$$\text{ب) } \sqrt[12]{2^4} \times \sqrt[12]{2^4} \times \sqrt[12]{2^4} = \sqrt[12]{2^{12}} = 2 \times 2 \times 2 = 8 \quad \checkmark$$

$$\left(\frac{r}{r}\right)^x \times \frac{1 + r^9 + rv + M + r^0}{\frac{1}{r} + \frac{1}{r} + 1 + r + r^2 + 1} = 0r$$

(r) - Δ

$$\rightarrow \left(\frac{r}{r}\right)^x \times \frac{1 + r^9 + 9 + rv + 11 + r^0}{1} = 9r^9 \times 11r^9$$

$$\rightarrow \left(\frac{r}{r}\right)^x = \frac{9}{r} - 1, 21 \leq r \quad \checkmark$$

ESPADANA

$$a = \sqrt[4]{\sqrt{4} - 2}$$

$$b = \sqrt[4]{\sqrt{4} + 2}$$

$$-(a-b)^4 (a+b)^4 - 4$$

(2)

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

$$= 2^4 + 1 - 1\sqrt{2} + 2^4 + 1 - 14\sqrt{2} + (2 - \sqrt{2}) = 17 - 14\sqrt{2} + 14(2 - \sqrt{2})$$

$$= 14 \checkmark$$

$$a + \frac{1}{a} = 2 \rightarrow (2 + \sqrt{2})^4 (2 - \sqrt{2})^4 (2^4 - 2^4)$$

2V

(2)

$$2 - \sqrt{2} = (2 - \sqrt{2})^4 = \sqrt[4]{2 - \sqrt{2}} + \sqrt[4]{2 + \sqrt{2}} \neq 2 \sqrt{(2 - \sqrt{2})(2 + \sqrt{2})}$$

$$= 2^4 + 2^4 = 2^4$$

$$\rightarrow (4 - 2)^4 = 14 \rightarrow 14 \checkmark$$

$$\sqrt[4]{14}$$

$$10\sqrt{r^2 \times r^2} = \sqrt{r^2}$$

(2) -A

$$\sqrt{r^2} \times r^{\frac{1}{r}} = \sqrt{r^2} \times \sqrt{r^2} = \sqrt{r^4} = r^2 = A$$

$$(1A)^{\frac{1}{r}} = 1^{\frac{1}{r}} = (r^2)^{\frac{1}{r}} = r^{\frac{2}{r}} = \frac{1}{r} \quad \checkmark$$

$$\sqrt{a} = rV \times \sqrt{a^{10}} \rightarrow a^{-r} = rV = \left(\frac{1}{a}\right)^r = rV \quad \text{(2) -A}$$

$$\rightarrow \frac{1}{a} = \sqrt{(r)^r} = r\sqrt{r} \quad \frac{r\sqrt{r} - 1}{1 + \sqrt{r}} \approx 0/1$$

$$\text{for } \frac{1}{a}, 4 - r\sqrt{r} \approx 0/1 \quad \checkmark$$

$$\sqrt{n+a} = A \quad B = \sqrt{n-r}$$

(2) -10

$$A-B=r \rightarrow A^2 - B^2 = (n+a) - (n-r) = r+a$$

$$r(A+B) = r+a \rightarrow A+B = \frac{r+a}{r} \rightarrow A+B-r = \frac{r+a}{r}$$

$$= \frac{a}{r} \quad \checkmark$$

٢ الف

$$\overbrace{\left(\frac{\sqrt{1+\sqrt{3}} + \sqrt{\sqrt{3}-1}}{\sqrt{\sqrt{3}-\sqrt{2}}} - 2 \right)}^A = \frac{\sqrt{2}(\sqrt{\sqrt{3}+\sqrt{2}})}{\sqrt{\sqrt{3}-\sqrt{2}}} - 2 = \sqrt{2} \left(\sqrt{\frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}} \right) - 2 =$$

$$\rightarrow A^T = 2\sqrt{3} + 2\sqrt{2} \rightarrow A = \sqrt{2}(\sqrt{\sqrt{3}+\sqrt{2}})$$

$$\sqrt{2} \sqrt{(\sqrt{3}+\sqrt{2})^T} = \sqrt{4} + 2 - 2 = \boxed{\sqrt{4}}$$