عرشیا رحیمی تکلیف شماره ۲۴ یازدهم پسر B

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$3^{A(1)+B} = (1)^2 \Rightarrow 3^{A+B} = 3^0 \Rightarrow A+B=0 \Rightarrow 2A=2 \Rightarrow A=1$, $B=-1$

$3^{A(3)+B} = 3^2 \Rightarrow 3^{3A+B} = 3^2 \Rightarrow 3A+B=2$

$f(x) = 3^{x-1} \Rightarrow y = 3^{0-1} \Rightarrow \boxed{y=\frac{1}{3}}$

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$\log_2^{(4^x+15)} = x+3 \Rightarrow 4^x+15 = 2^{x+3} \Rightarrow (2^x)^2+15 = 8\times 2^x$

$t^2-8t+15=0 \rightarrow (t-5)(t-3)=0$

$t=3 \Rightarrow 2^x=3 \Rightarrow \log_2^3 = x_2$

$t=5 \Rightarrow 2^x=5 \Rightarrow \log_2^5 = x_1$

$x_1+x_2 = \log_2^5+\log_2^3 = \boxed{\log_2^{15}}$

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$\log_{21}^3 \times \log_{21}^3 + (\log_{21}^{21\times 7})(\log_{21}^{(21)^2\times 3})$

$\Rightarrow \log_{21}^3\times\log_{21}^3 + (1+\log_{21}^7)(2+\log_{21}^3)$

$\Rightarrow \log_{21}^3\times\log_{21}^3 + \log_{21}^7\times\log_{21}^3 + 2\log_{21}^7 + \log_{21}^3 + 2$

$\log_{21}^3(\log_{21}^3+\log_{21}^7)$, $\log_{21}^{21}=1$

$2\log_{21}^3 + 2\log_{21}^7 + 2 = \boxed{4}$

$2\log_{21}^{21} = 2$

۴-

$\log(x-1)^2 + \log -(x-1)^3 = 5 \Rightarrow \log -(x-1)^5 = 5$

$5\log -(x-1) = 5 \Rightarrow 1-x = 10 \Rightarrow -x = 9$

$\log_3^{(9)} = \boxed{2}$

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$$\log_2^{(x^2+2x+4)(x-2)} = \log_2^8$$

$$\Rightarrow x^3-2x^2+2x^2-4x+4x-8=8$$

$$\Rightarrow x^3=16 \Rightarrow x=\sqrt[3]{16}$$

$$\log_{\sqrt[3]{2}}^{\sqrt[3]{16}} = \boxed{4}$$

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$$\log \frac{2-x}{\frac{1}{(x-2)^2}} = 3 \Rightarrow \log_{10}^{-(x-2)^3} = \log_{10}^{10^3}$$

$$\Rightarrow -(x-2)^3 = 10^3 \Rightarrow -(x-2)=10 \Rightarrow -x=8$$

$$\boxed{\log_{\sqrt{2}}^{8} = 6}$$

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$$3^{x^2-2} = 3^{4x} \Rightarrow x^2-4x-2=0 \Rightarrow x^2-4x+4-4-2=0 \Rightarrow (x-2)^2=6$$

$$\Rightarrow (x-2)=\sqrt{6}$$

$$\boxed{\log_6^{\sqrt{6}} = \frac{1}{2}}$$

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$$\log_{2\times3^2}^{3} \Rightarrow \frac{3}{\log_3^{2\times3^2}} \Rightarrow \frac{3}{\log_3^2+2\log_3^3} \Rightarrow \frac{3}{1+2(1/6)} \Rightarrow \frac{3}{4/2} = \boxed{\frac{10}{14}}$$

$$\log_3^2 = \frac{5}{8} \Rightarrow \log_2^3 = 1/6$$

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$$\frac{1}{2}\log_2^3 = 0/8 \Rightarrow \log_2^3 = 1/6 \Rightarrow \log_2^3+\log_2^2 = 2/6 \Rightarrow \log_2^6 = 2/6$$

$$\log_{6\times2}^{6} \Rightarrow \frac{1}{\log_6^6+\log_6^2} = \frac{1}{\frac{10}{26}+\frac{26}{26}} = \boxed{\frac{13}{18}}$$

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$a\log 2 - a + 6\log 2 = 0$

$\Rightarrow \log 2^{a+6} = a \Rightarrow \log 2^{a+6} = \log 10^{a}$

$\Rightarrow 2^{a} \times 2^{6} = 2^{a} \times 3^{a} \Rightarrow 2^{6} = 3^{a} \Rightarrow 6\log 2 = a\log 3$

$\Rightarrow \frac{6}{a} = \log_2 3 \Rightarrow \sqrt{2}^{\log_2 3}$

$\Rightarrow 2^{\frac{1}{2}\log_2 3} \Rightarrow 3^{\frac{1}{2}\log_2 2} = \boxed{\sqrt{3}}$