קובץ מצורף - הנחיות מר...

$3^x = 81$ (1

$x = 4$

$4^x = 2$ (5

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$2^{2 \cdot x} = 2$

$2^{2x} = 2$

$2x = 1 \quad 1:2$

$x = 0.5$

$3^{x-5} = 9$ (10

$3^{x-5} = 3^2$

$x - 5 = 2$

$x = 7$

$2^{3x-2} = 4^x$ (15

$2^{3x-2} = 2^{2\cdot(x)}$

$3x - 2 = 2x$

$\boxed{x = 2}$

$100^{3x-2} = 1000^{\frac{x}{3}+2}$ (20

$10^{2(3x-2)} = 10^{3(\frac{x}{3}+2)}$

$6x - 4 = x + 6$

$5x = 10$

$\boxed{x = 2}$

$5^x \cdot 125 = 25^x$ (25

$$5^x \cdot 5^3 = 5^{2x}$$

$$x + 3 = 2x$$

$$\boxed{x = 3}$$

$32^x \cdot 16^{1-x} = 4^{x+2}$ (30

$$2^{5x} \cdot 2^{4(1-x)} = 2^{2(x+2)}$$

$$5x + 4 - 4x = 2x + 4$$

$$\boxed{x = 0}$$

$3^x = \frac{1}{27}$ (35

$$3^x = 27^{-1}$$

$$\boxed{x = -3}$$

$5^x = \left(\frac{1}{125}\right)^{x+2}$ (40

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$$5^x = \left(\frac{1}{125}\right)^{x+2}$$

$$5^x = 125^{-1(x+2)}$$

$$5^x = 5^{3(-x-2)}$$

$$x = 3(-x-2)$$

$$x = -3x - 6$$

$$0 = -4x - 6$$

$$\boxed{x = \frac{3}{2}}$$

$64^{2x-1} = \left(\frac{1}{8}\right)^{x-1}$ (45

$$64^{2x-1} = \left(\frac{1}{8}\right)^{x-1}$$

$$2(2x-1) = -x+1$$

$$4x - 2 = -x + 1$$

$5x = 3$

$$x = \frac{3}{5}$$

$$\left(\frac{16}{81}\right)^{x} = \left(\frac{3}{2}\right)^{x^2-5} \quad (50$$

$$\left(\frac{16}{81}\right)^{x} = \left(\frac{3}{2}\right)^{x^2-5}$$

$$\left(\frac{2}{3}\right)^{4x} = \left(\frac{2}{3}\right)^{-1(x^2-5)}$$

$$4x = -x^2 + 5$$

$$x - 4x - 5 = 0$$

$\sqrt{abc}$

5, -1

$$\left(\frac{2}{7}\right)^{x^2-\frac{3}{2}} \cdot \left(\frac{7}{2}\right)^{\frac{3}{2}} = \left(\frac{49}{4}\right)^{-x} \quad (55$$

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$$\left(\frac{2}{7}\right)^{x^2-\frac{3}{2}} \left(\frac{2}{7}\right)^{\frac{-3}{2}} = \left(\frac{2}{7}\right)^{2x}$$

$$x^2 - \frac{3}{2} - \frac{3}{2} = 2x$$

$$x^2 - 2x - 3 = 0$$

-1, 3

$(\sqrt{5})^{x+2} = 625$ (60

$$\left(5^{\frac{1}{2}}\right)^{x+2} = 625$$

$$5^{0.5x+1} = 5^4$$

$$0.5x + 1 = 4 \quad / \cdot 2$$

$$\boxed{x = 6}$$

$(25\sqrt{5})^{x} = 0.2^{\frac{1}{2}x-2}$ (65

$$\left(25\sqrt{5}\right)^{x} = 0.2^{\frac{1}{2}x-2}$$

$$\left(5^2 \cdot 5^{0.5}\right)^{x} = 5^{-1(0.5x-2)}$$

$2.5x = -0.5x + 2$

$3x = 2$

$$x = \frac{2}{3}$$