

$$-3 \cdot (2x - 8x^2 + 7x^3 - 8)$$

$$= -3 \cdot (2x + (-8x^2) + 7x^3 + (-8))$$

$$-(-) = -1 \cdot (-)$$

$$= (-3) \cdot 2x + (-3)(-8x^2) + (-3)7x^3 + (-3)(-8)$$

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$$23u - (14v - (8v + 6u - 3v - (43v - 16u)) - 16u)$$

$$= 23u - (14v - (8v + 6u - 3v - 43v + 16u) - 16u)$$

$$= 23u - (14v - (8v - 3v - 43v + 6u + 16u) - 16u)$$

$$= 23u - (14v - ((8 - 3 - 43) \cdot v + (6 + 16) \cdot u) - 16u)$$

$$= 23u - (14v - (-38v + 22u) - 16u)$$

$$= 23u - (52v - 22u - 16u)$$

$$= 23u - (52v - 38u)$$

$$= 23u - 52v + 38u$$

$$= 61u - 52v$$

$$\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$$

$$-\frac{9}{4} \left( -\frac{8}{9} - \left( \frac{1 \cdot 2}{3 \cdot 2} + \frac{1}{6} \right) \right)$$

$$= -\frac{9}{4} \cdot \left( -\frac{8}{9} - \left( \frac{2}{6} + \frac{1}{6} \right) \right)$$

$$2 \cdot 9 = 3 \cdot 3 \cdot 2$$

$$3 \cdot 6 = 2 \cdot 3 \cdot 3$$

$$= -\frac{9}{4} \cdot \left( -\frac{8 \cdot 2}{9 \cdot 2} - \frac{3 \cdot 3}{6 \cdot 3} \right)$$

$$= -\frac{9}{4} \cdot \left( -\frac{16}{18} - \frac{9}{18} \right)$$

$$= -\frac{9}{4} \cdot \left( \frac{-25}{18} \right)$$

$$= \frac{(-9) \cdot (-25)}{4 \cdot 18}$$

$2 \cdot 9$

$$= \frac{(-9) \cdot (-25)}{4 \cdot 2} = \frac{25}{8}$$

$$\frac{1 \cdot (x+3)^{-1}}{y-2} = \frac{1}{(y-2) \cdot (x+3)^{-1}}$$

$$a^{m-n+1} \cdot a^{m+n-8} = a^{m-n+1+m+n-8} = a^{2m-7}$$

$$\frac{a^{m-n+1}}{a^{m+n-8}} = a^{m-n+1-(m+n-8)} = a^{m-n+1-m-n+8}$$

$$= a^{-2n+9}$$

$$\sqrt[4]{a^{n+4}} : \sqrt{a^{n-4}} = a^{\frac{(n+4)}{4}} : a^{(n-4) \cdot \frac{1}{2}}$$

$$= \frac{a^{\frac{n}{4}+1}}{a^{\frac{n}{2}-2}}$$

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

$$= a^{\frac{n}{4}+1 - \frac{n}{2}+2}$$

$$= a^{\frac{n}{4}-\frac{n}{2}+3}$$

$$-\frac{9}{6} = (-1) \cdot \frac{9}{6}$$

$$= \frac{1}{-1} \cdot \frac{9}{6} = \frac{-1}{1} \cdot \frac{9}{6}$$

$$= \frac{9}{-6} = \frac{-9}{6}$$

$$= \frac{3-x}{5+y}$$

$$= a^{n/4 - \frac{2n}{4} + 3}$$

$$= a^{-n/4 + 3}$$

$$\left( \frac{x^{-4} y^{-5}}{a^{-1} b^3} \right)^2 \cdot \left( \frac{x^3 a^{-2}}{y^2 b^2} \right)^{-3}$$

$$= \frac{(x^{-4} y^{-5})^2}{(a^{-1} b^3)^2} \cdot \frac{(x^3 a^{-2})^{-3}}{(y^2 b^2)^{-3}}$$

$$= \frac{x^{-8} y^{-10}}{a^{-2} b^6} \cdot \frac{x^{-9} a^6}{y^{-6} b^{-6}}$$

$$= \frac{x^{-17} y^{-10} a^6}{a^{-2} \cancel{b^0} y^{-6}}$$

$\cancel{b^0} = 1$

$$= x^{-17} y^{-10} a^6 a^2 y^6$$

$$= x^{-17} y^{-4} a^8$$

$$\frac{\sqrt{12x^2 - y^2}}{\sqrt{9x - 9y}} - \frac{3\sqrt{x+y}}{1}$$

$$\begin{aligned} \sqrt{9x - 9y} &= \sqrt{9 \cdot (x - y)} \\ &= \sqrt{9} \cdot \sqrt{x - y} \end{aligned}$$

$$\sqrt{\quad} = (\quad)^{1/2}$$

$$= \frac{2\sqrt{x^2-y^2}}{3\sqrt{x-y}} - \frac{3\sqrt{x+y} \cdot 3\sqrt{x-y}}{3\sqrt{x-y}}$$

$$= \frac{4\sqrt{x^2-y^2}}{\sqrt{x-y}} - \frac{9\sqrt{(x+y)(x-y)}}{3\sqrt{x-y}}$$

$$= \frac{4\sqrt{x^2-y^2}}{\sqrt{x-y}} - \frac{3\sqrt{x^2-y^2}}{\sqrt{x-y}}$$

$$= \frac{4\sqrt{x^2-y^2} - 3\sqrt{x^2-y^2}}{\sqrt{x-y}}$$

$$= \frac{\sqrt{x^2-y^2}}{\sqrt{x-y}}$$

$$= \frac{\sqrt{(x-y)(x+y)}}{\sqrt{x-y}}$$

$$= \sqrt{\frac{(x-y)(x+y)}{x-y}}$$

$$= \sqrt{x+y} = (x+y)^{1/2}$$

$$\frac{3y^{a+2}}{\sqrt{2x^2 + 4xy + 2y^2}} + \frac{3xy^{a+1}}{\sqrt{2 \cdot (x+y)}}$$

$\begin{matrix} a^2 & 2ab & b^2 \end{matrix}$

$$= \frac{3y^{a+2}}{\sqrt{2(x^2 + 2xy + y^2)}} + \frac{3xy^{a+1}}{\sqrt{2 \cdot (x+y)}}$$

$$= \frac{3y^{a+2}}{\sqrt{2} \cdot \underbrace{\sqrt{(x+y)^2}}_{=x+y}} + \frac{3xy^{a+1}}{\sqrt{2} \cdot \sqrt{x+y}} \cdot \frac{\sqrt{x+y}}{\sqrt{x+y}}$$

$$= \frac{3y^{a+2} + 3xy^{a+1} \cdot \sqrt{x+y}}{\sqrt{2} (x+y)}$$

$$\begin{cases} y^{a+2} = y^{a+1+1} \\ = y^{a+1} y^1 \\ = y^{a+1} y \end{cases}$$

$$= \frac{3y^{a+1} (y + x \sqrt{x+y})}{\sqrt{2} (x+y)}$$

per cento  
co

per c ~~per~~ o

$\frac{o}{o}$  %

$\cdot \frac{1}{100}$

$$\frac{1000 \text{ g}}{100000 \text{ g}} = 0,01 = 1 \cdot \left(\frac{1}{100}\right) = 1\%$$

3% van 81

$$\frac{\cancel{3\%}}{\cancel{100\%}} = \frac{x}{81}$$

$$\frac{243}{100} = x \quad x = 2,43$$