

$$\underline{11/10}$$

$$\underline{1.10 \text{ σε } 75}$$

Πράξεις ρητών Παραστάσεων

Τύποι

$$\frac{a}{b} \cdot \frac{\gamma}{\delta} = \frac{a \cdot \gamma}{b \cdot \delta} \quad \left(\begin{array}{l} \text{Πολ/ζω αριθμητή με αριθμητή} \\ \text{και παρονομαστή με παρονομαστή} \end{array} \right)$$

$$\frac{a}{b} : \frac{\gamma}{\delta} = \frac{a}{b} \cdot \frac{\delta}{\gamma} = \frac{a \cdot \delta}{b \cdot \gamma}$$

$$\frac{\frac{a}{b}}{\frac{\gamma}{\delta}} = \frac{a \cdot \delta}{b \cdot \gamma} \quad (\text{ἀκροί - μέσοι})$$

Παραδείγματα

$$1) \frac{2}{x} \cdot \frac{4}{3} = \frac{2 \cdot 4}{3x}$$

$$2) \frac{3a}{2} \cdot \frac{x}{3a} = \frac{\cancel{3a}x}{2 \cdot \cancel{3a}} = \frac{x}{2}$$

$$3) \frac{3x}{2y} : \frac{4a}{6b} = \frac{3x}{2y} \cdot \frac{6b}{4a} = \frac{3x \cdot 6b}{2y \cdot 4a} = \frac{\cancel{18} \times b}{\cancel{8}ay} = \frac{9 \times b}{4ay}$$

$$4) \frac{3a}{b} : \frac{3b}{a^2} = \frac{3a}{b} \cdot \frac{a^2}{3b} = \frac{3a \cdot a^2}{3b \cdot b} = \frac{\cancel{3}a^3}{\cancel{3}b^2}$$

$$\begin{aligned} b + b &= 2b \\ b \cdot b &= b^2 \\ a \cdot a^2 &= a^{1+2} \\ &= a^3 \end{aligned}$$

Hw

$$1) \frac{2}{b} \cdot \frac{a}{3} =$$

$$2) \frac{3x}{2y} \cdot \frac{5a}{6w} =$$

$$3) \frac{x^2}{2} : \frac{4}{x} =$$

$$4) \frac{2 \cancel{2}}{3b^2} \cdot \frac{3\cancel{2}^2}{2b^5} =$$

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$$\frac{2}{6} \cdot \frac{a}{3} = \frac{2 \cdot a}{3 \cdot 6}$$

$$\frac{3x}{2y} \cdot \frac{5a}{6w} = \frac{3x \cdot 5a}{2y \cdot 6w} = \frac{15xa}{12yw}$$

$$\frac{x}{2} : \frac{4}{x} = \frac{x}{2} \cdot \frac{x}{4} = \frac{x \cdot x}{2 \cdot 4} = \frac{x^2}{8}$$

$$\frac{22}{36^2} \cdot \frac{32^2}{26^5} = \frac{22}{36^2} \cdot \frac{26^5}{32^2} = \frac{22 \cdot 26^5}{36^2 \cdot 32^2} = \frac{4 \cancel{2} 6^5}{9 \cancel{6}^2 \cancel{2}^2} = \frac{46^3}{92}$$

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$$\frac{a}{b} + \frac{r}{b} = \frac{a+r}{b}$$

$$\frac{a}{b} - \frac{r}{b} = \frac{a-r}{b}$$

$$\frac{\pi x}{3} + \frac{5}{x} = \frac{3+5}{x} = \frac{8}{x}$$

$$\frac{8}{x} - \frac{5}{x} = \frac{8-5}{x} = \frac{3}{x}$$

$$\frac{3x}{a^2} + \frac{5x}{a^2} = \frac{3x+5x}{a^2} = \frac{8x}{a^2}$$

$$\frac{10xy}{a-b} - \frac{8xy}{a-b} = \frac{10xy-8xy}{a-b} = \frac{2xy}{a-b}$$

Hw

$$\frac{3}{x} + \frac{4}{x} =$$

$$\frac{10}{a} - \frac{5}{a} =$$

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

$$\frac{12w}{a^2} - \frac{10w}{a^2} =$$

$$\frac{2b}{x+5} + \frac{3b}{x+5} =$$

$$\frac{4a+b}{(x-5)^2} + \frac{b-4a}{(x-5)^2} =$$

$$\frac{a+b}{3xy} - \frac{b}{3xy} =$$

$$\frac{8}{2x^2w^4} + \frac{2}{2x^2w^4} =$$

$$\begin{aligned} x \cdot x &= x^2 \\ x \cdot x \cdot x &= x^3 \\ x \cdot x \cdot x \cdot x \cdot x &= x^5 \end{aligned}$$