FRACCIONES

Resolver 16:

$$\frac{\dfrac{\frac{3}{5}+\frac{6}{8}+\frac{5}{10}}{2\frac{1}{3}+5\frac{1}{9}-\frac{1}{4}}\,x\left(\frac{7}{12}-\frac{2}{15}\right)x\left(4\frac{5}{6}-3\frac{2}{9}\right)}{2:\frac{6}{14}+\frac{9}{5}:3+\frac{0,[4]}{0,8}-0,9[8]}-\frac{2,2}{7}\,x\sqrt{\frac{841}{101761}}$$

Aclaraciones para mejor comprensión del problema

x es el símbolo de la multiplicación

$2\frac{1}{3}$: esta notación son números mixtos

$$2\frac{1}{3}=\frac{6+1}{3}=\frac{\mathbf{7}}{\mathbf{3}}$$

$$5\frac{1}{9}=\frac{45+1}{9}=\frac{\mathbf{46}}{\mathbf{9}}$$

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$$4\frac{5}{6} = \frac{24+5}{6} = \frac{29}{6}$$

$$3\frac{2}{9} = \frac{27+2}{9} = \frac{29}{9}$$

conversión en fracciones ordinarias:

$$2,2 = \frac{11}{5}$$

$$0,[4] = 0,444444\ldots = \frac{4}{9}$$

$$0,9[8] = 0,9888888\ldots = \frac{89}{90}$$

$$0,8 = \frac{4}{5}$$

$$\sqrt{841} = 29 \qquad \sqrt{101761} = 319$$

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$$\frac{\dfrac{3}{5}+\dfrac{6}{8}+\dfrac{5}{10}}{2\dfrac{1}{3}+5\dfrac{1}{9}-\dfrac{1}{4}}x\left(\dfrac{7}{12}-\dfrac{2}{15}\right)\text{x}\left(4\dfrac{5}{6}-3\dfrac{2}{9}\right)}{2:\dfrac{6}{14}+\dfrac{9}{5}:3+\dfrac{0,[4]}{0,8}-0,9[8]} - \dfrac{2,2}{7}\text{x}\sqrt{\dfrac{841}{101761}}$$

$$\cfrac{\cfrac{\dfrac{3}{5}+\dfrac{\cancel{2}x3}{\cancel{2}x4}+\dfrac{\cancel{5}}{\cancel{5}x2}}{\dfrac{7}{3}+\dfrac{46}{9}-\dfrac{1}{4}}x\left(\dfrac{7}{12}-\dfrac{2}{15}\right)\text{x}\left(\dfrac{29}{6}-\dfrac{29}{9}\right)}{\dfrac{2x14}{6}+\dfrac{9}{5x3}+\dfrac{\dfrac{4}{9}}{\dfrac{4}{5}}-\dfrac{89}{90}}} - \cfrac{\dfrac{11}{5}}{7}\text{x}\dfrac{29}{319}$$

$$\frac{\dfrac{\dfrac{3}{5}+\dfrac{3}{4}+\dfrac{1}{2}}{\dfrac{7}{3}+\dfrac{46}{9}-\dfrac{1}{4}}\,x\left(\dfrac{7}{12}-\dfrac{2}{15}\right)x\left(\dfrac{29}{6}-\dfrac{29}{9}\right)}{\dfrac{\cancel{2}x14}{\cancel{2}x3}+\dfrac{\cancel{3}x3}{5x\cancel{3}}+\dfrac{\dfrac{\cancel{4}\,9}{4}}{\dfrac{4}{5}}-\dfrac{89}{90}} - \dfrac{\dfrac{11}{5}}{7}\,x\,\dfrac{29}{319}$$

$$\frac{\dfrac{\dfrac{3}{5}+\dfrac{3}{4}+\dfrac{1}{2}}{\dfrac{7}{3}+\dfrac{46}{9}-\dfrac{1}{4}}\,x\left(\dfrac{7}{12}-\dfrac{2}{15}\right)x\left(\dfrac{29}{6}-\dfrac{29}{9}\right)}{\dfrac{14}{3}+\dfrac{3}{5}+\dfrac{5}{9}-\dfrac{89}{90}} - \dfrac{\cancel{11}}{7x5}\,x\,\dfrac{\cancel{29}}{\cancel{11x29}}$$

$$\frac{\dfrac{\dfrac{3x4+3x5+1x10}{20}}{\dfrac{7x12+46x4-1x9}{36}}\,x\left(\dfrac{7x5-2x4}{60}\right)x\left(\dfrac{29x3-29x2}{18}\right)}{\dfrac{14x30+3x18+5x10-89x1}{90}} - \dfrac{1}{7x5}$$

$$\frac{\dfrac{\dfrac{12+15+10}{20}}{\dfrac{84+184-9}{36}} x \left(\dfrac{35-8}{60}\right) x \left(\dfrac{29}{18}\right)}{\dfrac{420+54+50-89}{90}} - \dfrac{1}{7x5}$$

$$\frac{\dfrac{\dfrac{37}{20}}{\dfrac{259}{36}} x \dfrac{27}{60} x \dfrac{29}{18}}{\dfrac{435}{90}} - \dfrac{1}{7x5}$$

$$\frac{\dfrac{37x36x27x29}{20x259x60x18}}{\dfrac{435}{90}} - \dfrac{1}{7x5}$$

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$$\frac{\cancel{37}\text{x}36\text{x}27\text{x}\cancel{29}\text{x}90}{20\text{x}\cancel{37}\text{x}7\text{x}60\text{x}18\text{x}\cancel{29}\text{x}15} - \frac{1}{7\text{x}5}$$

$$\frac{\cancel{18}\text{x}2\text{x}27\text{x}\cancel{15}\text{x}6}{20\text{x}7\text{x}60\text{x}\cancel{18}\text{x}\cancel{15}} - \frac{1}{7\text{x}5}$$

$$\frac{2\text{x}27\text{x}2\text{x}3}{2\text{x}10\text{x}7\text{x}60} - \frac{1}{7\text{x}5}$$

$$\frac{\cancel{2}\text{x}27\text{x}\cancel{2\text{x}3}}{\cancel{2}\text{x}10\text{x}7\text{x}\cancel{6}\text{X}10} - \frac{1}{7\text{x}5}$$

$$\frac{27}{2\text{x}5\text{x}7\text{X}2\text{X}5} - \frac{1}{7\text{x}5}$$

$$\frac{27\text{X}1 - 1\text{X}2\text{x}2\text{x}5}{2\text{x}5\text{x}7\text{X}2\text{X}5} = \frac{27 - 20}{700} = \frac{7}{700} = \frac{7\text{X}1}{7\text{X}100} = \frac{1}{100} = 0{,}01$$

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