TRASFORMAZIONI DI FRAZIONI

1. $\left(0,\bar{5} - 0,5\right) : 0,\bar{1} + \left(0,\bar{4} - 0,4\right) : 0,2 = $ **13/18**

$= \left(5/9 - {}^{1}\!5/10_2\right) : 1/9 + \left(4/9 - {}^{2}\!4/10_5\right) : {}^{1}2/10_5 =$

$= \left(5/9 - 1/2\right) : 1/9 + \left(4/9 - 2/5\right) : 1/5 =$

$= \left(\dfrac{10 - 9}{18}\right) : \dfrac{1}{9} + \left(\dfrac{20 - 18}{45}\right) : 1/5 =$

$= \dfrac{1}{18} : \dfrac{1}{9} + \dfrac{2}{45} : \dfrac{1}{5} =$

$= \dfrac{1}{18_2} \cdot \dfrac{9^1}{1} + \dfrac{2}{45_9} \cdot \dfrac{5^1}{1} = \dfrac{1}{2} + \dfrac{2}{9} = \dfrac{9 + 4}{18} = \dfrac{13}{18}$ ✓

2. $\dfrac{1 - \boxed{0,8\bar{3}}}{1 + 0,\bar{3}} + \dfrac{0,125}{3 - 0,5} = $ **7/40**

$\boxed{125 : 1000 = 0,125}$

$= \dfrac{1 - {}^{75/90}}{1 + {}^{1}3/9_3} + \dfrac{{}^{1}125/1000^{8}}{3 - {}_{1}5/10_2} =$

$= \dfrac{1 - \frac{75}{90}}{1 + \frac{1}{3}} + \dfrac{\frac{1}{8}}{3 - \frac{1}{2}} =$

$= \dfrac{\frac{90 - 75}{90}}{\frac{3 + 1}{3}} + \dfrac{\frac{1}{8}}{\frac{6 - 1}{2}} =$

$= \dfrac{\frac{15}{90}}{\frac{4}{3}} + \dfrac{\frac{1}{8}}{\frac{5}{2}} =$

$= \dfrac{{}^{1}15}{{}_{6}90} : \dfrac{4}{3} + \dfrac{1}{8} : \dfrac{5}{2} =$

$= \dfrac{1}{6} \cdot \dfrac{3}{4} + \dfrac{1}{8} \cdot \dfrac{2}{5} =$

$= \dfrac{1}{{}_2 6} \cdot \dfrac{3^1}{4} + \dfrac{1}{8_4} \cdot \dfrac{2^1}{5} = \dfrac{1}{8} + \dfrac{1}{20} = \dfrac{5 + 2}{40} = \dfrac{7}{40}$ ✓

$\dfrac{\frac{83}{90}}{\frac{3}{9}} \longrightarrow \dfrac{83}{90_{10}} \cdot \dfrac{9^1}{3}$

$\neq$

$\dfrac{1 - \frac{83}{90}}{1 + \frac{3}{9}} = \left(1 - \dfrac{83}{90}\right) : \left(1 + \dfrac{3}{9}\right)$

$\dfrac{2A + B}{2}$ NO!

$\dfrac{2A + 6B}{2} = \dfrac{\cancel{2}(A + 3B)}{\cancel{2}}$ Sì

ATTENZIONE!!

$0,\boxed{8}\bar{3} \longrightarrow \dfrac{83}{90} ?$ NO!

$\longrightarrow 8,\bar{3} = \dfrac{83 - 8}{\ } = \dfrac{75}{\ }$

$$\xrightarrow{} \quad \frac{8,\overset{\bullet}{\overline{3}}}{10} = \frac{83-8}{10 \cdot 9} = \frac{75}{90}$$

$$22,\overline{3} = \frac{223-22}{9} = \frac{201}{9}$$

$$0,\overline{29} = \frac{29-0}{99} = \frac{29}{99}$$

$$1,\overline{213} = \frac{1213-1}{999} = \frac{1212}{999} = \frac{404}{333}$$

$$2,2\overline{3} = \frac{22,\overline{3}}{10} = \frac{223-22}{10 \cdot 9} = \frac{201}{90}$$