

Correzione della verifica di matematica del 16 dicembre 2014

ESERCIZIO 1

$$\left[\frac{24}{18} \cdot \frac{3}{5} + \left(\frac{2}{3} + \frac{4}{10} + \frac{35}{42} \right) \cdot \frac{30}{4} - \frac{24}{9} : \frac{10}{27} - \frac{17}{20} \right] : \frac{14}{6} =$$

$$\left[\frac{4}{3} \cdot \frac{3}{5} + \left(\frac{2}{3} + \frac{2}{5} + \frac{5}{6} \right) \cdot \frac{15}{2} - \frac{8}{3} : \frac{10}{27} - \frac{17}{20} \right] : \frac{7}{3} =$$

$$\left[\frac{4}{3} \cdot \frac{3}{5} + \left(\frac{20+12+25}{30} \right) \cdot \frac{15}{2} - \frac{8}{3} : \frac{10}{27} - \frac{17}{20} \right] : \frac{7}{3} =$$

$$\left[\frac{4}{3} \cdot \frac{3}{5} + \left(\frac{20+12+25}{30} \right) \cdot \frac{15}{2} - \frac{8}{3} \cdot \frac{27}{10} - \frac{17}{20} \right] : \frac{3}{7} =$$

$$\left[\frac{4}{3} \cdot \frac{3}{5} + \frac{57}{30} \cdot \frac{15}{2} - \frac{8}{3} \cdot \frac{27}{10} - \frac{17}{20} \right] : \frac{3}{7} =$$

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$$\left[\frac{4}{1} \cdot \frac{1}{5} + \frac{57}{2} \cdot \frac{1}{2} - \frac{4}{1} \cdot \frac{9}{5} - \frac{17}{20} \right] \cdot \frac{3}{7} =$$

$$\left[\frac{4}{5} + \frac{57}{4} - \frac{36}{5} - \frac{17}{20} \right] \cdot \frac{3}{7} =$$

$$\left[\frac{16+285-144-17}{20} \right] \cdot \frac{3}{7} =$$

$$\left[\frac{301-144-17}{20} \right] \cdot \frac{3}{7} =$$

$$\left[\frac{157-17}{20} \right] \cdot \frac{3}{7} =$$

$$\frac{140}{20} \cdot \frac{3}{7} = \frac{1}{1} \cdot \frac{3}{1} = 3$$

ESERCIZIO 2

$$\left\{ \left[\left(\frac{1}{3} \right)^2 + \left(\frac{2}{3} \right)^2 \cdot \left(\frac{1}{4} \right)^2 \right] : \frac{10}{9} \right\} + \left\{ \left[\left(\frac{7}{12} - \frac{1}{18} \right) \cdot \frac{9}{19} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \left[\frac{1}{9} + \left(\frac{2}{3} \cdot \frac{1}{4} \right)^2 \right] : \frac{10}{9} \right\} + \left\{ \left[\left(\frac{7}{12} - \frac{1}{18} \right) \cdot \frac{9}{19} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \left[\frac{1}{9} + \left(\frac{1}{3} \cdot \frac{1}{2} \right)^2 \right] : \frac{10}{9} \right\} + \left\{ \left[\left(\frac{21-2}{36} \right) \cdot \frac{9}{19} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \left[\frac{1}{9} + \left(\frac{1}{6} \right)^2 \right] : \frac{10}{9} \right\} + \left\{ \left[\frac{19}{36} \cdot \frac{9}{19} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \left[\frac{1}{9} + \frac{1}{36} \right] : \frac{10}{9} \right\} + \left\{ \left[\frac{1}{4} \cdot \frac{1}{1} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

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$$\left\{ \left[\frac{4+1}{36} \right] : \frac{10}{9} \right\} + \left\{ \left[\frac{1}{4} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \frac{5}{36} : \frac{10}{9} \right\} + \left\{ \left[\frac{1}{4} \right]^{2^5} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \frac{5}{36} \cdot \frac{9}{10} \right\} + \left\{ \left(\frac{1}{4} \right)^{10} : \left(\frac{1}{4} \right)^8 - \frac{3}{16} \right\} =$$

$$\left\{ \frac{1}{4} \cdot \frac{1}{2} \right\} + \left\{ \left(\frac{1}{4} \right)^2 - \frac{3}{16} \right\} =$$

$$\frac{1}{8} + \frac{1}{16} - \frac{3}{16} = \frac{2+1-3}{16} = \frac{3-3}{16} = \frac{0}{16} = 0$$

ESERCIZIO 3

$$\left(\frac{14}{12} - \frac{1}{2} \right) + \left(\frac{7}{6} + \frac{3}{4} - \frac{3}{2} \right) : \left(\frac{6}{8} + \frac{1}{2} \right) =$$

$$\left(\frac{7}{6} - \frac{1}{2} \right) + \left(\frac{7}{6} + \frac{3}{4} - \frac{3}{2} \right) : \left(\frac{3}{4} + \frac{1}{2} \right) =$$

$$\frac{7-3}{6} + \frac{14+9-18}{12} : \frac{3+2}{4} =$$

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$$\frac{4}{6} + \frac{5}{12} : \frac{5}{4} =$$

$$\frac{2}{3} + \frac{5}{12} \cdot \frac{4}{5} =$$

$$\frac{2}{3} + \frac{1}{3} \cdot \frac{1}{1} =$$

$$\frac{2}{3} + \frac{1}{3} = \frac{3}{3} = 1$$

ESERCIZIO 4

$$\left\{ \left[\left(\frac{2}{3} \right)^4 \cdot \left(\frac{2}{3} \right)^{2^3} \right] : \left(\frac{2}{3} \right)^9 \right\} : \left[\left(\frac{2}{3} \right)^2 \cdot \frac{2}{3} \right]^3 =$$

$$\left\{ \left[\left(\frac{2}{3} \right)^{6+3} \right] : \left(\frac{2}{3} \right)^9 \right\} : \left[\left(\frac{2}{3} \right)^3 \right]^3 =$$

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$$\left\{ \left(\frac{2}{3} \right)^{18} : \left(\frac{2}{3} \right)^9 \right\} : \left(\frac{2}{3} \right)^9 = \text{ si può continuare in due modi}$$

$$1) \rightarrow \left(\frac{2}{3} \right)^9 : \left(\frac{2}{3} \right)^9 = \left(\frac{2}{3} \right)^0 = 1$$

$$2) \rightarrow \left(\frac{2}{3} \right)^9 : \left(\frac{2}{3} \right)^9 = \left(\frac{2}{3} : \frac{2}{3} \right)^9 = 1^9 = 1$$