16/10/2019

$|-10|$

$|-7|$

1

589 $\{[(-2)^{|5-15|} : (-2)^{|8-15|} - (-3)^{18} : (-3)^{15} - (-55)^0] : (-9)\}^{17} : (-2)^{14} =$

$= \{[(-2)^{10} : (-2)^7 - (-3)^3 - 1] : (-9)\}^{17} : (-2)^{14} =$

$= \{[(-2)^3 - (-27) - 1] : (-9)\}^{17} : (-2)^{14} =$

$= \{[-8 + 27 - 1] : (-9)\}^{17} : (-2)^{14} =$

$= \{18 : (-9)\}^{17} : (-2)^{14} =$

$= \{-2\}^{17} : (-2)^{14} = (-2)^3 = \boxed{-8}$

594

$$\frac{\{(-5)^2[(-5)^4:(-5)^3] + (-10)^2\}^7 : [-(-25)^2]^2}{\{[(-3)^3(+3)^4]^2 : (+3^4)^3 - (-2)^2\}^4} =$$

$$= \frac{\{(-5)^2[-5] + 100\}^7 : 25^4}{\{[-3^7]^2 : 3^{12} - 4\}^4} =$$

$$= \frac{\{(-5)^3 + 100\}^7 : 25^4}{\{(-3)^{14} : 3^{12} - 4\}^4} =$$

$$= \frac{\{-125 + 100\}^7 : 25^4}{\{3^{14} : 3^{12} - 4\}^4} = \frac{\{-25\}^7 : 25^4}{\{3^2 - 4\}^4} =$$

perché $(-3)^{14} = 3^{14}$

$$= \frac{-25^3}{5^4} = \frac{-(5^2)^3}{5^4} = \frac{-5^6}{5^4} = -5^2 = \boxed{-25}$$

121

$$\frac{\left(\dfrac{1}{6} + \dfrac{1}{8} + \dfrac{29}{24}\right) \cdot \left(\dfrac{1}{10} + \dfrac{1}{5} + \dfrac{11}{30}\right)}{3 - \dfrac{5}{4} - \dfrac{31}{20}} =$$

$$= \frac{\dfrac{4+3+29}{24} \cdot \dfrac{3+6+11}{30}}{\dfrac{60-25-31}{20}} =$$

$$= \frac{\dfrac{\overset{1}{\cancel{12}}\,\overset{36}{\cancel{36}}}{\cancel{12}\,\cancel{24}} \cdot \dfrac{\overset{20}{\cancel{20}}}{\cancel{30}}}{\dfrac{\overset{1}{\cancel{4}}}{\cancel{20}_5}} = \frac{1}{\dfrac{1}{5}} = 1 \cdot \frac{5}{1} = \boxed{5}$$