Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{4}{5} \times \left(\left(\frac{1}{6} \right)^2 + \frac{2}{3} \right) \div \left(-\frac{1}{2} \right)$

$\left(\left(-\frac{2}{3} \right) - \left(-\frac{2}{9} \right) \right)^2 \times \left(\frac{3}{4} + \frac{3}{8} \right)$

$\left(-\frac{2}{5} \right) \times \frac{2}{9} \div \left(\frac{4}{9} + \frac{5}{9} \right)^2$

$\left(\frac{7}{9} + \left(\frac{1}{6} \right)^2 \div \frac{5}{8} \right) \times \left(-\frac{5}{6} \right)$

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Simplify each expression using the correct order of operations.

$\frac{4}{5} \times \left(\left(\frac{1}{6}\right)^2 + \frac{2}{3} \right) \div \left(-\frac{1}{2}\right)$

$= \frac{4}{5} \times \left(\frac{1}{36} + \frac{2}{3} \right) \div \left(-\frac{1}{2}\right)$

$= \frac{4}{5} \times \frac{25}{36} \div \left(-\frac{1}{2}\right)$

$= \frac{5}{9} \div \left(-\frac{1}{2}\right)$

$= -\frac{10}{9}$

$= -1\frac{1}{9}$

$\left(\left(-\frac{2}{3}\right) - \left(-\frac{2}{9}\right) \right)^2 \times \left(\frac{3}{4} + \frac{3}{8} \right)$

$= \left(-\frac{4}{9}\right)^2 \times \left(\frac{3}{4} + \frac{3}{8} \right)$

$= \left(-\frac{4}{9}\right)^2 \times \frac{9}{8}$

$= \frac{16}{81} \times \frac{9}{8}$

$= \frac{2}{9}$

$\left(-\frac{2}{5}\right) \times \frac{2}{9} \div \left(\frac{4}{9} + \frac{5}{9} \right)^2$

$= \left(-\frac{2}{5}\right) \times \frac{2}{9} \div 1^2$

$= \left(-\frac{2}{5}\right) \times \frac{2}{9} \div 1$

$= \left(-\frac{4}{45}\right) \div 1$

$= -\frac{4}{45}$

$\left(\frac{7}{9} + \left(\frac{1}{6}\right)^2 \div \frac{5}{8} \right) \times \left(-\frac{5}{6}\right)$

$= \left(\frac{7}{9} + \frac{1}{36} \div \frac{5}{8} \right) \times \left(-\frac{5}{6}\right)$

$= \left(\frac{7}{9} + \frac{2}{45} \right) \times \left(-\frac{5}{6}\right)$

$= \frac{37}{45} \times \left(-\frac{5}{6}\right)$

$= -\frac{37}{54}$