Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\left(\frac{1}{3}\right)^2 - \frac{8}{9}\right) \div \left(-\frac{5}{8}\right)$

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

$\left(-\frac{8}{9}\right) \div \left(\left(\frac{2}{3}\right)^2 + \left(-\frac{5}{9}\right)\right)$

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

$\frac{1}{3} \times \left(-\frac{5}{9}\right) + \left(\frac{4}{9}\right)^2$

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

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$\left(\left(\frac{1}{3}\right)^2 - \frac{8}{9}\right) \div \left(-\frac{5}{8}\right)$

$= \left(\frac{1}{9} - \frac{8}{9}\right) \div \left(-\frac{5}{8}\right)$

$= \left(-\frac{7}{9}\right) \div \left(-\frac{5}{8}\right)$

$= \frac{56}{45}$

$= 1\frac{11}{45}$

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

$= \left(-\frac{5}{6}\right) \times \left(\frac{1}{4} - \frac{4}{5}\right)$

$= \left(-\frac{5}{6}\right) \times \left(-\frac{11}{20}\right)$

$= \frac{11}{24}$

$\left(-\frac{8}{9}\right) \div \left(\left(\frac{2}{3}\right)^2 + \left(-\frac{5}{9}\right)\right)$

$= \left(-\frac{8}{9}\right) \div \left(\frac{4}{9} + \left(-\frac{5}{9}\right)\right)$

$= \left(-\frac{8}{9}\right) \div \left(-\frac{1}{9}\right)$

$= 8$

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

$= \frac{25}{81} + \left(-\frac{1}{9}\right) \times \left(-\frac{7}{9}\right)$

$= \frac{25}{81} + \frac{7}{81}$

$= \frac{32}{81}$

$\frac{1}{3} \times \left(-\frac{5}{9}\right) + \left(\frac{4}{9}\right)^2$

$= \frac{1}{3} \times \left(-\frac{5}{9}\right) + \frac{16}{81}$

$= \left(-\frac{5}{27}\right) + \frac{16}{81}$

$= \frac{1}{81}$

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

$= \left(-\frac{2}{5}\right) \times \left(\frac{5}{6} + \frac{1}{9}\right)$

$= \left(-\frac{2}{5}\right) \times \frac{17}{18}$

$= -\frac{17}{45}$