Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{5}{8}\right)^2 \div \left(\frac{2}{3} - \frac{1}{6}\right)$

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

$\frac{7}{8} + \frac{5}{8} \div \left(\frac{1}{4}\right)^2$

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

$\left(\frac{1}{9}\right)^2 \div \frac{1}{3} + \frac{2}{3}$

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

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

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

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

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Simplify each expression using the correct order of operations.

$\left(\frac{5}{8}\right)^2 \div \left(\frac{2}{3} - \frac{1}{6}\right)$

$= \left(\frac{5}{8}\right)^2 \div \frac{1}{2}$

$= \frac{25}{64} \div \frac{1}{2}$

$= \frac{25}{32}$

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

$= \frac{2}{3} - \frac{1}{5} \times \frac{25}{36}$

$= \frac{2}{3} - \frac{5}{36}$

$= \frac{19}{36}$

$\frac{7}{8} + \frac{5}{8} \div \left(\frac{1}{4}\right)^2$

$= \frac{7}{8} + \frac{5}{8} \div \frac{1}{16}$

$= \frac{7}{8} + 10$

$= \frac{87}{8}$

$= 10\frac{7}{8}$

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

$= \frac{9}{16} \times \frac{4}{5} + \frac{1}{4}$

$= \frac{9}{20} + \frac{1}{4}$

$= \frac{7}{10}$

$\left(\frac{1}{9}\right)^2 \div \frac{1}{3} + \frac{2}{3}$

$= \frac{1}{81} \div \frac{1}{3} + \frac{2}{3}$

$= \frac{1}{27} + \frac{2}{3}$

$= \frac{19}{27}$

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

$= \frac{2}{3} \times \left(\frac{2}{3}\right)^3$

$= \frac{2}{3} \times \frac{8}{27}$

$= \frac{16}{81}$

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

$= \frac{5}{9} \times \frac{1}{25} + \frac{3}{5}$

$= \frac{1}{45} + \frac{3}{5}$

$= \frac{28}{45}$

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

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

$= \frac{25}{81} \times \frac{1}{5}$

$= \frac{5}{81}$

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

$= \frac{2}{3} \div \frac{5}{9} - \frac{1}{4}$

$= \frac{6}{5} - \frac{1}{4}$

$= \frac{19}{20}$