

Order of Operations with Fractions (G)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(\left(\frac{1}{3} \right)^2 + \frac{4}{9} \right) \times \frac{3}{8}$$

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

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

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

$$\left(\frac{7}{8} - \frac{3}{8} \right) \times \left(\frac{1}{2} \right)^2$$

$$\frac{1}{9} \div \frac{3}{4} - \left(\frac{1}{3} \right)^3$$

$$\frac{7}{8} \div \left(\frac{3}{4} \right)^3 + \frac{2}{9}$$

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

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Simplify each expression using the correct order of operations.

$$\begin{aligned} & \frac{3}{5} \div \left(\left(\frac{1}{2} \right)^2 + \frac{1}{8} \right) \\ &= \frac{3}{5} \div \left(\frac{1}{4} + \frac{1}{8} \right) \\ &= \frac{3}{5} \div \frac{3}{8} \\ &= \frac{8}{5} \\ &= 1\frac{3}{5} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{1}{3} \right)^2 + \frac{4}{9} \right) \times \frac{3}{8} \\ &= \left(\frac{1}{9} + \frac{4}{9} \right) \times \frac{3}{8} \\ &= \frac{5}{9} \times \frac{3}{8} \\ &= \frac{5}{24} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} - \left(\frac{1}{8} \right)^2 \div \frac{1}{4} \\ &= \frac{2}{5} - \frac{1}{64} \div \frac{1}{4} \\ &= \frac{2}{5} - \frac{1}{16} \\ &= \frac{27}{80} \end{aligned}$$

$$\begin{aligned} & \frac{1}{3} + \frac{3}{4} \div \left(\frac{1}{2} \right)^3 \\ &= \frac{1}{3} + \frac{3}{4} \div \frac{1}{8} \\ &= \frac{1}{3} + 6 \\ &= \frac{19}{3} \\ &= 6\frac{1}{3} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{3} \right)^2 \times \frac{2}{5} + \frac{2}{3} \\ &= \frac{1}{9} \times \frac{2}{5} + \frac{2}{3} \\ &= \frac{2}{45} + \frac{2}{3} \\ &= \frac{32}{45} \end{aligned}$$

$$\begin{aligned} & \left(\frac{7}{8} - \frac{3}{8} \right) \times \left(\frac{1}{2} \right)^2 \\ &= \frac{1}{2} \times \left(\frac{1}{2} \right)^2 \\ &= \frac{1}{2} \times \frac{1}{4} \\ &= \frac{1}{8} \end{aligned}$$

$$\begin{aligned} & \frac{1}{9} \div \frac{3}{4} - \left(\frac{1}{3} \right)^3 \\ &= \frac{1}{9} \div \frac{3}{4} - \frac{1}{27} \\ &= \frac{4}{27} - \frac{1}{27} \\ &= \frac{1}{9} \end{aligned}$$

$$\begin{aligned} & \frac{7}{8} \div \left(\frac{3}{4} \right)^3 + \frac{2}{9} \\ &= \frac{7}{8} \div \frac{27}{64} + \frac{2}{9} \\ &= \frac{56}{27} + \frac{2}{9} \\ &= \frac{62}{27} \\ &= 2\frac{8}{27} \end{aligned}$$

$$\begin{aligned} & \left(\frac{5}{6} - \frac{1}{6} \right)^3 \div \frac{1}{4} \\ &= \left(\frac{2}{3} \right)^3 \div \frac{1}{4} \\ &= \frac{8}{27} \div \frac{1}{4} \\ &= \frac{32}{27} \\ &= 1\frac{5}{27} \end{aligned}$$