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CP ~~pg 10~~ # 1, 2, 3

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

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

$$= \frac{6}{6}$$

1

$$b) \frac{-7}{8} + \left(\frac{-1}{2}\right) - \left(\frac{17}{8}\right)$$

$$= \frac{-7}{8} + \frac{-4}{8} - \frac{17}{8}$$

$$= \frac{-28}{8}$$

$$= \left(\frac{-7}{2}\right)$$

$$c) \frac{9}{8} - \left(\frac{-5}{2}\right) + \left(\frac{-5}{6}\right)$$

$$= \frac{27}{24} - \frac{-60}{24} + \frac{-20}{24}$$

$$= \left(\frac{67}{24}\right)$$

$$d) \frac{3}{8} + \left(\frac{1}{-6}\right) - \left(\frac{-4}{3}\right)$$

$$= \frac{9}{24} + \frac{-4}{24} - \frac{-32}{24}$$

$$= \left(\frac{37}{24}\right)$$

$$e) \frac{31}{10} - \left(\frac{-3}{100}\right) + 1$$

$$= \frac{310}{100} - \frac{-3}{100} + \frac{100}{100}$$

$$= \left(\frac{413}{100}\right)$$

$$f) \frac{-5}{8} - \left(\frac{-1}{4}\right) + \frac{3}{2}$$

$$= \frac{-5}{8} - \left(\frac{-2}{8}\right) + \frac{12}{8}$$

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

$$2 \text{ a) } -\frac{1}{8} \times \frac{2}{3} \div \left(\frac{1}{-3} \right)$$

$$= -\frac{1}{8} \left(\frac{2}{3} \right) \left(\frac{-3}{1} \right)$$

$$= \frac{6}{24}$$

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

$$\text{b) } \left(\frac{13}{4} \right) \div \left(\frac{-3}{2} \right) \times \frac{4}{3}$$

$$= \left(\frac{13}{4} \right) \left(\frac{-2}{3} \right) \times \frac{4}{3}$$

$$= \frac{-104}{36}$$

$$= \left(\frac{-26}{9} \right)$$

$$\text{c) } \frac{3}{2} \left(\frac{3}{5} \cdot \left(\frac{-3}{10} \right) \right)$$

$$= \frac{3}{2} \left(\frac{3}{5} \times \frac{-10}{3} \right)$$

$$= \frac{3}{2} \left(\frac{-30}{15} \right)$$

$$= \frac{-90}{30}$$

$$= \left(-3 \right)$$

$$\text{d) } 3\frac{1}{4} \times 1\frac{1}{5} \div \left(-\frac{13}{6} \right)$$

$$= \frac{13}{4} \times \frac{6}{5} \times \frac{-6}{13}$$

$$= \frac{-468}{260}$$

$$= \frac{-18}{10}$$

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

$$\text{e) } -\frac{6}{25} \times \frac{7}{16} \div \frac{3}{8}$$

$$= \frac{-42}{400} \times \frac{8}{3}$$

$$= \frac{-336}{1200}$$

$$= \frac{-14}{50}$$

$$= \left(\frac{-7}{25} \right)$$

$$\text{f) } -\frac{8}{15} \times \left(\frac{21}{4} \div \frac{5}{2} \right)$$

$$= \frac{-8}{15} \times \left(\frac{21}{4} \times \frac{2}{5} \right)$$

$$= \frac{-8}{15} \times \left(\frac{42}{20} \right)$$

$$= \frac{-336}{300}$$

$$= \left(\frac{-28}{25} \right)$$

$$\begin{aligned}
 3 \text{ a) } & \frac{3}{-4} \times \frac{2}{3} + \left(\frac{-3}{4} \right) \\
 & = \frac{6}{-12} + \frac{-3}{4} \\
 & = \frac{-6}{12} + \frac{-9}{12} \\
 & = \frac{-15}{12} \\
 & = \frac{-5}{4}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } & \frac{3}{5} \left(\frac{-2}{3} + \frac{1}{2} \right) \\
 & = \frac{3}{5} \left(\frac{-4}{6} + \frac{3}{6} \right) \\
 & = \frac{3}{5} \left(\frac{-1}{6} \right) \\
 & = \frac{-3}{30} \\
 & = \frac{-1}{10}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } & \frac{3}{4} + \left(\frac{-2}{3} \right) \times \frac{1}{2} \\
 & = \frac{3}{4} + \frac{-2}{3} \left(\frac{1}{2} \right) \\
 & = \frac{3}{4} + \frac{-6}{6} \\
 & = \frac{3}{4} + \frac{-4}{4} \\
 & = \frac{-1}{4}
 \end{aligned}$$

$$\begin{aligned}
 \text{d) } & \left(\frac{1}{4} - \left(\frac{-2}{3} \right) \right) \div \frac{1}{12} \\
 & = \left(\frac{1}{4} + \frac{2}{3} \right) \times \frac{1}{12} \\
 & = \left(\frac{15}{12} + \frac{8}{12} \right) \times \frac{1}{12} \\
 & = \left(\frac{23}{12} \right) \left(\frac{1}{12} \right) \\
 & = \frac{23}{144}
 \end{aligned}$$

$$\begin{aligned}
 \text{e) } & \left(\frac{-1}{2} + \frac{1}{3} \right) \left(\frac{2}{5} + \frac{1}{2} \right) \\
 & = \left(\frac{-3}{6} + \frac{2}{6} \right) \left(\frac{4}{10} + \frac{5}{10} \right) \\
 & = \left(\frac{-1}{6} \right) \left(\frac{9}{10} \right) \\
 & = \frac{-9}{60} \\
 & = \frac{-3}{20}
 \end{aligned}$$

$$\begin{aligned}
 \text{f) } & \frac{1}{2} \times \left(\frac{-3}{4} \right) + \frac{1}{2} \times \frac{5}{6} \\
 & = \frac{-3}{8} + \frac{5}{12} \\
 & = \frac{-9}{24} + \frac{10}{24} \\
 & = \frac{1}{24}
 \end{aligned}$$

$$g) \left(\frac{-11}{5} + \left(\frac{-3}{4} \right) \right) + \frac{2}{3} \times \frac{1}{5}$$

$$= \left(\frac{-44}{20} + \frac{-15}{20} \right) + \frac{2}{15}$$

$$= \frac{-59}{20} + \frac{2}{15}$$

$$= \frac{-177}{60} + \frac{8}{60}$$

$$= \frac{-169}{60}$$

$$h) \left(\frac{1}{2} - \left(\frac{-2}{5} \right) \right) - \left(\frac{-1}{2} - 2 \right)$$

$$= \left(\frac{5}{10} + \frac{4}{10} \right) - \left(\frac{-1}{2} - \frac{4}{2} \right)$$

$$= \left(\frac{9}{10} \right) - \left(\frac{-5}{2} \right)$$

$$= \frac{9}{10} - \frac{-25}{10}$$

$$= \frac{34}{10}$$

$$= \frac{17}{5}$$

$$i) \left(5 - \left(\frac{1}{-3} \right) \right) - \left(\frac{2}{3} - 2 \right)$$

$$= \left(\frac{15}{3} + \frac{1}{3} \right) - \left(\frac{2}{3} - \frac{6}{3} \right)$$

$$= \frac{16}{3} - \left(\frac{-4}{3} \right)$$

$$= \frac{20}{3}$$