

$$\begin{aligned}
 \text{LHS} \\
 110 \text{ (d)} &= x \times (y+z) \\
 &= \frac{-1}{5} \times \left(\frac{2}{15} + \frac{-3}{10} \right) \\
 &= \frac{-1}{5} \times \left(\frac{4+(-9)}{30} \right) \\
 &= \frac{-1}{5} \times \frac{-5}{30} \\
 &= \frac{1}{30}
 \end{aligned}$$

$$\begin{aligned}
 \text{RHS} \\
 &= x \times y + x \times z \\
 &= \frac{-1}{5} \times \frac{2}{15} + \frac{-1}{5} \times \frac{-3}{10} \\
 &= \frac{-2}{75} + \frac{3}{50} \\
 &= \frac{-4+9}{150} \\
 &= \frac{5}{150} \\
 &= \frac{1}{30}
 \end{aligned}$$

LHS = RHS

$$\begin{aligned}
 111 \text{ (a)} \quad \frac{3}{5} \times \left(\frac{35}{24} + \frac{10}{1} \right) \\
 &= \frac{3}{5} \times \frac{35}{24} + \frac{3}{5} \times \frac{10}{1} \\
 &= \frac{7}{8} + 6 \\
 &= \frac{7+48}{8} \\
 &= \frac{55}{8}
 \end{aligned}$$

$$\begin{aligned}
 111 \text{ (b)} \\
 &= \frac{-5}{4} \times \left(\frac{8}{5} + \frac{16}{15} \right) \\
 &= \frac{-5}{4} \times \frac{8}{5} + \frac{-5}{4} \times \frac{16}{15} \\
 &= -2 + \frac{-4}{3} \\
 &= \frac{-6-4}{3} \\
 &= \frac{-10}{3}
 \end{aligned}$$

$$\begin{aligned}
 111 \text{ (c)} \quad \frac{2}{7} \times \left(\frac{7}{16} - \frac{21}{4} \right) \\
 &= \frac{2}{7} \times \frac{7}{16} - \frac{2}{7} \times \frac{21}{4} \\
 &= \frac{1}{8} - \frac{3}{2} \\
 &= \frac{1-12}{8} \\
 &= \frac{-11}{8}
 \end{aligned}$$

$$\begin{aligned}
 111 \text{ (d)} \quad \frac{3}{4} \times \left[\frac{8}{9} - 40 \right] \\
 &= \frac{3}{4} \times \frac{8}{9} - \frac{3}{4} \times 40 \\
 &= \frac{2}{3} - 30 \\
 &= \frac{2-90}{3} \\
 &= \frac{-88}{3}
 \end{aligned}$$