

$$106 \text{ (a)} \left[\frac{1}{2} \times \frac{1}{4} \right] + \left[\frac{1}{2} \times 6 \right]$$

$$= \frac{1}{2} \left(\frac{1}{4} + 6 \right) \quad [\text{distributive prop.}]$$

$$= \frac{1}{2} \times \frac{25}{4}$$

$$= \frac{25}{8}$$

$$(b) \frac{1}{5} \times \frac{2}{15} - \frac{1}{5} \times \frac{2}{5}$$

$$= \frac{1}{5} \left(\frac{2}{15} - \frac{2}{5} \right) \quad [\text{distributive prop.}]$$

$$= \frac{1}{5} \times \frac{2-6}{15}$$

$$= \frac{1}{5} \times -\frac{4}{15}$$

$$= -\frac{4}{75}$$

$$(c) -\frac{3}{5} \times \left\{ \frac{3}{7} + \left(-\frac{5}{6} \right) \right\}$$

$$= -\frac{3}{5} \times \frac{3}{7} + \frac{-3}{5} \times \frac{-5}{6} \quad [\text{distributive prop}]$$

$$= -\frac{9}{35} + \frac{1}{2}$$

$$= -\frac{18 + 35}{70}$$

$$= \frac{17}{70}$$

$$107. \frac{1}{5} \times \left[\frac{5}{6} \times \frac{7}{9} \right] = \left[\frac{1}{5} \times \frac{5}{6} \right] \times \frac{7}{9}$$

[associative prop.]