1. Express as a whole number or ratio of whole numbers.

2. Simplify.

$$(10^{2})(10^{-2}) = 10^{2} \cdot \frac{1}{10^{2}} = 10^{2} \cdot$$

$$\left(\frac{1}{10}\right)\left(\frac{1}{10}\right) = \frac{1 \cdot 1}{|0 \cdot 10|} \qquad \left(\frac{1}{2}\right)\left(\frac{1}{2}\right) = \frac{1 \cdot 1}{2 \cdot 2} = \frac{1}{4}$$

$$\left(\frac{5}{10}\right)\left(\frac{1}{10}\right) = \frac{5 \cdot 1}{|0 \cdot 10|} = \frac{5}{20} \qquad \left(\frac{5}{2}\right)\left(\frac{1}{2}\right) = \frac{5}{2} \cdot \frac{1}{2} = \frac{5}{4}$$

$$\left(\frac{1}{10}\right)\left(\frac{6}{10}\right) = \frac{1 \cdot 6}{|0 \cdot 10|} = \frac{3}{20}$$

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$$\left(\frac{5}{2}\right)\left(\frac{6}{2}\right) = \frac{5 \cdot 6}{2 \cdot 2} = \frac{3}{20}$$

$$\left(\frac{5}{2}\right)\left(\frac{6}{2}\right) = \frac{5 \cdot 6}{2 \cdot 2} = \frac{3}{20}$$

$$\left(\frac{7}{10}\right)\left(\frac{3}{10}\right) = \frac{7 \cdot 5}{|0 \cdot 10|} = \frac{21}{|0 \cdot 10|}$$

$$\left(\frac{7}{2}\right)\left(\frac{3}{2}\right) = \frac{7 \cdot 3}{2 \cdot 2} = \frac{21}{4}$$

$$\left(\frac{1}{10}\right) \times \left(\frac{1}{10}\right) = \frac{|\cdot|}{|0\cdot|0} = \frac{1}{|00|} \left(\frac{1}{2}\right) \left(\frac{1}{2}\right) = \frac{|\cdot|}{2\cdot 2} = \boxed{\frac{1}{4}}$$

$$\left(\frac{5}{10}\right)\left(\frac{1}{10}\right) = \frac{5 \cdot 1}{10 \cdot 10} = \frac{5}{100} \cdot 100 = \frac{5}{100} \cdot 100 = \frac{5}{2} \cdot$$

$$\left(\frac{1}{10}\right)\left(\frac{6}{10}\right) = \frac{\frac{1.6}{1000}}{\frac{3}{50}} = \frac{\frac{3}{600}}{\frac{3}{500}} \left(\frac{1}{2}\right)\left(\frac{6}{2}\right) = \frac{\frac{1.6}{2.2}}{\frac{3}{2}} = \frac{\frac{3}{2}}{\frac{3}{2}}$$

$$\left(\frac{5}{10}\right)\left(\frac{6}{10}\right) = \frac{5.6}{10/10} = \frac{30}{10/10} \quad \left(\frac{5}{2}\right)\left(\frac{6}{2}\right) = \frac{5.6}{2.2} = \frac{30}{20}$$

$$\left(\frac{2}{10}\right)\left(\frac{5}{10}\right) = \frac{2 \cdot 5}{10 \cdot 10} = \frac{10}{100}\left(\frac{2}{10}\right)\left(\frac{5}{2}\right) = \frac{2 \cdot 5}{2} \cdot 2$$

$$\left(\frac{7}{10}\right)\left(\frac{3}{10}\right) = \frac{7.3}{100} \left(\frac{3}{100}\right) \left(\frac{7}{2}\right) \left(\frac{3}{2}\right) = \frac{7.3}{200} \left(\frac{3}{2}\right)$$

$$\frac{1}{2} = \frac{1 \cdot 2}{1} = \frac{3 \cdot 2}{2} = 6$$

$$\frac{4}{2} = \frac{2 \cdot 4}{1} = 8$$

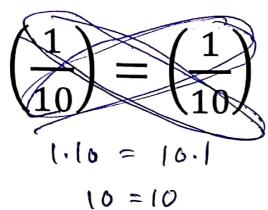
$$\frac{\binom{1}{2}}{\binom{1}{1}} = \frac{1}{2 \cdot l} = \frac{1}{2} \quad \frac{\binom{1}{2}}{\binom{2}{3}} = \frac{1}{2 \cdot 3} = \frac{1}{6} \quad \frac{\binom{1}{2}}{\binom{2}{4}} = \frac{1}{2 \cdot y} = \frac{1}{8}$$

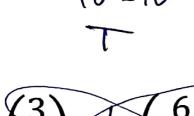
$$\frac{1}{2} = \frac{1.4}{3.2} = \frac{2.5}{4} = \frac{5}{4} = \frac{3.6}{5.4}$$

$$= \frac{3.6}{5.4} = \frac{3.6}{5$$

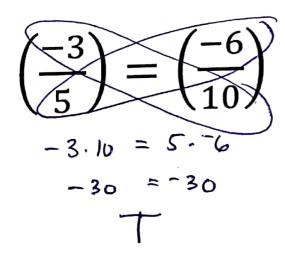


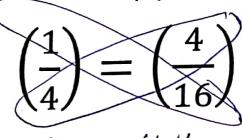
5. Is each statement true or false? Cross-multiply.

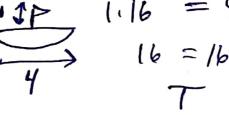


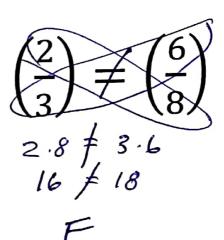


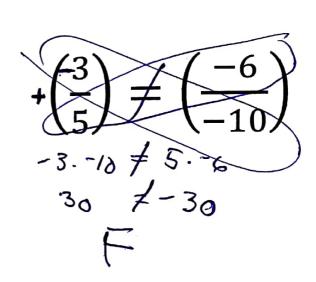
5) 15) 3.15 \ 5.6 45 \ \ 30 F











$$\frac{3}{3} \left(\frac{1}{2}\right) + \left(\frac{1}{3}\right) \frac{2}{2} = \frac{3}{3 \cdot 2} + \frac{1 \cdot 2}{3 \cdot 2} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$$

$$\frac{7}{7} \left(\frac{4}{5}\right) + \left(\frac{6}{7}\right) \frac{5}{5} = \frac{7 \cdot 4}{7 \cdot 5} + \frac{6 \cdot 5}{7 \cdot 5}$$

$$= \frac{28}{35} + \frac{30}{35} = \frac{58}{35}$$

$$\frac{4}{4}\left(\frac{1}{2}\right) + \left(\frac{3}{4}\right)^{\frac{2}{2}} = \frac{4.1}{4.2} + \frac{3.2}{4.2} = \frac{4.1}{4.2} + \frac{3.2}{4.2} = \frac{4.1}{8} + \frac{5.6}{8} = \frac{5.6}{4} = \frac{5.6}{4}$$

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

$$= \frac{8!}{8!2} + \frac{3!^{\frac{2}{2}}}{8!2} + \frac{3!^{\frac{2}{2}}}{8!2} =$$

$$= \frac{8!}{16!} + \frac{6!}{16!} = \frac{14!}{16!} = \frac{8!}{8!}$$