

Book

$$22) \left(\frac{1}{6} \cdot \frac{3}{5}\right)^2$$

$$= \left(\frac{1 \cdot \cancel{3}}{2 \cdot \cancel{3} \cdot 5}\right)^2$$

$$= \left(\frac{1}{10}\right)^2$$

$$= \frac{1}{10} \cdot \frac{1}{10}$$

$$= \frac{1}{100}$$

$$25) \frac{1}{6} + \left(\frac{7}{3}\right)\left(\frac{7}{4}\right)$$

$$= \frac{1}{6} + \frac{49}{12}$$

$$= \frac{2}{12} + \frac{49}{12}$$

$$= \frac{51}{12}$$

$$= \frac{17}{4}$$

$$27) 6 + \left(\frac{36}{7}\right) \div \left(\frac{1}{7}\right)$$

$$= 6 + \frac{36}{\cancel{7}} \cdot \frac{\cancel{7}}{1}$$

$$= 42$$

$$24) \left(\frac{\cancel{1} \cdot 2}{\cancel{1} \cdot \cancel{2}}\right)^3$$

$$= (2)^3$$

$$= 8$$

$$26) \frac{7}{9} + \left(\frac{13}{6}\right)\left(\frac{10}{3}\right)$$

$$= \frac{7}{9} + \frac{13 \cdot \cancel{2} \cdot 5}{\cancel{2} \cdot 3 \cdot 3}$$

$$= \frac{7}{9} + \frac{65}{9}$$

$$= \frac{72}{9}$$

$$= 8$$

$$41) \left(\frac{1}{4}\right)^2 \div \left(\frac{5}{6} - \frac{2 \cdot 2}{3 \cdot 2}\right) + \frac{7}{12}$$

$$= \left(\frac{1}{4}\right)^2 \div \left(\frac{5}{6} - \frac{4}{6}\right) + \frac{7}{12}$$

$$= \left(\frac{1}{4}\right)^2 \div \left(\frac{1}{6}\right) + \frac{7}{12}$$

$$= \frac{1}{16} \div \frac{1}{6} + \frac{7}{12}$$

$$= \frac{1}{\cancel{16}} \cdot \frac{\cancel{6}^3}{1} + \frac{7}{12}$$

$$= \frac{3^3}{8 \cdot 3} + \frac{7}{12} \cdot \frac{2}{2} = \frac{9}{24} + \frac{14}{24} = \frac{23}{24}$$

$$42) \left(\frac{1}{2} \cdot \frac{3}{3} + \frac{1}{3} \cdot \frac{2}{2} \right) \left(\frac{2}{5} \right)^2 + \frac{3}{10}$$

$$= \left(\frac{3}{6} + \frac{2}{6} \right) \left(\frac{2}{5} \right)^2 + \frac{3}{10}$$

$$= \frac{\cancel{5}}{\cancel{6}_3} \cdot \frac{\cancel{4}^2}{\cancel{25}_5} + \frac{3}{10}$$

$$= \frac{2}{15} + \frac{3}{10}$$

$$= \frac{2 \cdot 2}{15 \cdot 2} + \frac{3}{10} \cdot \frac{3}{3}$$

$$= \frac{4}{30} + \frac{9}{30}$$

$$= \frac{13}{30}$$

$$43) \left(5 - 1 \frac{7}{8} \right) \div \left(3 - \frac{13}{16} \right)$$

$$= \left(5 \frac{0}{8} - 1 \frac{7}{8} \right) \div \left(2 \frac{16}{16} - \frac{13}{16} \right)$$

$$= \left(4 + 1 \frac{0}{8} - 1 \frac{7}{8} \right) \div \left(2 \frac{3}{16} \right)$$

$$= \left(4 \frac{8}{8} - 1 \frac{7}{8} \right) \div \left(2 \frac{3}{16} \right)$$

$$= 3 \frac{1}{8} \div 2 \frac{3}{16}$$

$$= \frac{25}{8} \div \frac{35}{16}$$

$$= \frac{\cancel{5}^1}{\cancel{25}_8} \cdot \frac{16^2}{\cancel{35}_7}$$

$$= \frac{10}{7}$$

Practice Assessment unit 2

$$20) \frac{4}{9} + \frac{7}{6} \left(\frac{8}{6} \right)$$

$$= \frac{4}{9} + \frac{7}{6}$$

$$= \frac{4 \cdot 2}{9 \cdot 2} + \frac{7 \cdot 3}{6 \cdot 3}$$

$$= \frac{8}{18} + \frac{21}{18}$$

$$= \frac{29}{18}$$

$$21) \frac{3}{8} + \frac{11}{7} \left(\frac{7}{6} \right)$$

$$= \frac{3}{8} + \frac{11}{6}$$

$$= \frac{3 \cdot 3}{8 \cdot 3} + \frac{11 \cdot 4}{6 \cdot 4}$$

$$= \frac{9}{24} + \frac{44}{24}$$

$$= \frac{53}{24}$$

$$22) \left(\frac{4}{9} + \frac{5}{6} \right) \cdot \left(\frac{9}{5} \right)$$

$$= \left(\frac{4}{9} \cdot \frac{2}{2} + \frac{5}{6} \cdot \frac{3}{3} \right) \cdot \left(\frac{9}{5} \right)$$

$$= \left(\frac{8}{18} + \frac{15}{18} \right) \cdot \left(\frac{9}{5} \right)$$

$$= \frac{23}{18} \cdot \frac{9}{5}$$

$$= \frac{23}{10}$$

$$23) \left(\frac{3}{8} + \frac{7}{6} \right) \cdot \frac{5}{9}$$

$$= \left(\frac{3}{8} \cdot \frac{3}{3} + \frac{7}{6} \cdot \frac{4}{4} \right) \cdot \frac{5}{9}$$

$$= \left(\frac{9}{24} + \frac{28}{24} \right) \cdot \frac{5}{9}$$

$$= \frac{37}{24} \cdot \frac{5}{9}$$

$$= \frac{185}{216}$$