



## National 5 Mathematics

### Fractions - Solutions

Marks are indicated in brackets after each question number

#### **2014 Paper 1 Question 1, (2)**

$$\begin{aligned}\frac{5}{12} \times 2\frac{2}{9} &= \frac{5}{12} \times \frac{20}{9} \\ &= \frac{100}{108} \\ &= \frac{25}{27}\end{aligned}$$

#### **2015 Paper 1 Question 1, (2)**

$$\begin{aligned}6\frac{1}{5} - 2\frac{1}{3} &= \frac{31}{5} - \frac{7}{3} \\ &= \frac{93}{15} - \frac{35}{15} \\ &= \frac{93-35}{15} \\ &= \frac{58}{15}\end{aligned}$$

#### **2015 Paper 2 Question 7, (3)**

$$\begin{aligned}\frac{5t}{s} \div \frac{t}{2s^2} &= \frac{5t}{s} \times \frac{2s^2}{t} \\ &= \frac{10ts^2}{ts} \\ &= 10s\end{aligned}$$

#### **2016 Paper 1 Question 2, (3)**

$$\begin{aligned}\frac{3}{4}\left(\frac{1}{3} + \frac{2}{7}\right) &= \frac{3}{4}\left(\frac{7}{21} + \frac{6}{21}\right) \\ &= \frac{3}{4}\left(\frac{13}{21}\right) = \frac{39}{84} = \frac{13}{28}\end{aligned}$$



**2017 Paper 1 Question 3, (3)**

$$\begin{aligned}1\frac{5}{6} \div \frac{3}{4} &= \frac{11}{6} \div \frac{3}{4} \\ &= \frac{11}{6} \times \frac{4}{3} \\ &= \frac{44}{18} \\ &= \frac{22}{9}\end{aligned}$$

**2018 Paper 1 Question 1, (2)**

$$\begin{aligned}2\frac{1}{3} + \frac{4}{5} &= \frac{7}{3} + \frac{4}{5} \\ &= \frac{35}{15} + \frac{12}{15} \\ &= \frac{47}{15} \\ &= 3\frac{2}{15}\end{aligned}$$

**2019 Paper 1 Question 2, (2)**

$$\begin{aligned}\frac{3}{8} \times 1\frac{5}{7} &= \frac{3}{8} \times \frac{12}{7} \\ &= \frac{36}{56} \\ &= \frac{9}{14}\end{aligned}$$

**2022 Paper 1 Question 1, (2)**

$$\begin{aligned}&\frac{2}{3}\left(\frac{1}{5} + \frac{3}{4}\right) \\ &= \frac{2}{3}\left(\frac{4}{20} + \frac{15}{20}\right) \\ &= \frac{2}{3}\left(\frac{19}{20}\right) \\ &= \frac{38}{60} \\ &= \frac{19}{30}\end{aligned}$$



**2023 Paper 1 Question 1, (2)**

$$\begin{aligned}2\frac{1}{6} \div \frac{8}{9} &= \frac{13}{6} \times \frac{9}{8} \\ &= \frac{13}{2} \times \frac{3}{8} \\ &= \frac{39}{16} \\ &= 2\frac{7}{16}\end{aligned}$$