National 5 Mathematics

Fractions - Solutions

Marks are indicated in brackets after each question number

2014 Paper 1 Question 1, (2)

$$\frac{5}{12} x \, 2\frac{2}{9} = \frac{5}{12} \, x \, \frac{20}{9}$$

$$= \frac{100}{108}$$

$$= \frac{25}{27}$$

2015 Paper 1 Question 1, (2)

$$6\frac{1}{5} - 2\frac{1}{3} = \frac{31}{5} - \frac{7}{3}$$

$$= \frac{93}{15} - \frac{35}{15}$$

$$= \frac{93-35}{15}$$

$$= \frac{58}{15}$$

2015 Paper 2 Question 7, (3)

$$\frac{5t}{s} \div \frac{t}{2s^2} = \frac{5t}{s} x \frac{2s^2}{t}$$

$$= \frac{10ts^2}{ts}$$

$$= 10s$$

2016 Paper 1 Question 2, (3)

$$\frac{3}{4}\left(\frac{1}{3} + \frac{2}{7}\right) = \frac{3}{4}\left(\frac{7}{21} + \frac{6}{21}\right)$$

$$= \frac{3}{4}\left(\frac{13}{21}\right) = \frac{39}{84} = \frac{13}{28}$$

2017 Paper 1 Question 3, (3)

$$1\frac{5}{6} \div \frac{3}{4} = \frac{11}{6} \div \frac{3}{4}$$
$$= \frac{11}{6} \, x \, \frac{4}{3}$$
$$= \frac{44}{18}$$
$$= \frac{22}{9}$$

2018 Paper 1 Question 1, (2)

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

2019 Paper 1 Question 2, (2)

$$\frac{3}{8} \, x \, 1\frac{5}{7} = \frac{3}{8} \, x \, \frac{12}{7}$$
$$= \frac{36}{56}$$
$$= \frac{9}{14}$$

2022 Paper 1 Question 1, (2)

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

2023 Paper 1 Question 1, (2)

$$2\frac{1}{6} \div \frac{8}{9} = \frac{13}{6} \, x \, \frac{9}{8}$$

$$= \frac{13}{2} \, x \, \frac{3}{8}$$

$$= \frac{39}{16}$$

$$= 2\frac{7}{16}$$

2024 Paper 1 Question 1, (2)

$$3\frac{2}{3} - 1\frac{1}{4} = \frac{11}{3} - \frac{5}{4}$$

$$= \frac{44}{12} - \frac{15}{12}$$

$$= \frac{29}{12}$$

$$= 2\frac{5}{12}$$

2025 Paper 1 Question 1, (2)

$$2\frac{4}{5} \times \frac{2}{7} = \frac{14}{5} \times \frac{2}{7}$$

$$= \frac{28}{35}$$

$$= \frac{4}{5}$$