



1 Work out $\frac{2}{3} \times \frac{3}{4}$

Give your answer in its simplest form.

(2 marks)

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$$

$$= \frac{1}{2}$$

$$\boxed{\frac{1}{2}}$$

2 Work out $\frac{3}{5} \times 4$

Give your answer as a mixed number.

(2 marks)

$$\frac{3}{5} \times \frac{4}{1} = \frac{12}{5}$$

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

$$\boxed{2 \frac{2}{5}}$$

3 Work out $\frac{4}{9} \times \frac{3}{10}$

Give your answer as a fraction in its simplest form.

(2 marks)

Multiply the numerators and multiply the denominators

$$4 \times 3 = 12 \text{ and } 9 \times 10 = 90, \text{ so the product is } \frac{12}{90}$$

Divide top and bottom by 6

$$\frac{12}{90} = \frac{2}{15}$$

$$\boxed{\frac{2}{15}}$$

- 4 Aisha has $\frac{3}{4}$ of a pizza left. She eats $\frac{2}{3}$ of what is left.

What fraction of the whole pizza does she eat?

(2 marks)

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$$

$$= \frac{1}{2}$$

$$\boxed{\frac{1}{2} \text{ of the pizza}}$$

- 5 A rectangle has length $\frac{3}{4}$ m and width $\frac{2}{5}$ m.

Work out its area. Give your answer as a fraction in its simplest form.

(2 marks)

$$\frac{3}{4} \times \frac{2}{5} = \frac{6}{20}$$

$$= \frac{3}{10}$$

$$\boxed{\frac{3}{10} \text{ m}^2}$$

- 6 Sam spends $\frac{2}{5}$ of his money on a game. He spends $\frac{1}{4}$ of the money he has left on lunch.

What fraction of his original money does he spend on lunch?

(3 marks)

$$\text{Left after the game: } 1 - \frac{2}{5} = \frac{3}{5}$$

$$\text{Lunch: } \frac{1}{4} \times \frac{3}{5}$$

$$= \frac{3}{20}$$

$$\boxed{\frac{3}{20}}$$

7

Work out $(\frac{5}{6} - \frac{1}{3}) \times \frac{4}{5}$

Give your answer in its simplest form.

(3 marks)

Brackets first

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

$$\frac{1}{2} \times \frac{4}{5} = \frac{4}{10}$$

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

$$\boxed{\frac{2}{5}}$$

8

Work out $\frac{7}{8} \times \frac{12}{5}$

Give your answer as a mixed number in its simplest form.

(2 marks)

Cancel 12 and 8 by 4

$$\frac{7}{2} \times \frac{3}{5} = \frac{21}{10}$$

$$= 2 \frac{1}{10}$$

$$\boxed{2 \frac{1}{10}}$$

9

Work out $(\frac{2}{3} + \frac{3}{4}) \times \frac{6}{5}$

Give your answer as a mixed number.

(4 marks)

Brackets first

$$\frac{2}{3} + \frac{3}{4} = \frac{8}{12} + \frac{9}{12} = \frac{17}{12}$$

$$\frac{17}{12} \times \frac{6}{5}$$

Cancel 6 and 12

$$= \frac{17}{2} \times \frac{1}{5} = \frac{17}{10}$$

$$= 1 \frac{7}{10}$$

$$\boxed{1 \frac{7}{10}}$$

10

Work out $3\frac{1}{3} \div 2\frac{1}{2}$

Give your answer as a mixed number in its simplest form.

(3 marks)

Write as improper fractions

$$3\frac{1}{3} = \frac{10}{3} \text{ and } 2\frac{1}{2} = \frac{5}{2}$$

To divide by $5/2$, multiply by its reciprocal $2/5$

$$(5/2) \times (2/5) = 1, \text{ so this undoes multiplication by } 5/2$$

Dividing by $\frac{5}{2}$ is the same as multiplying by $\frac{2}{5}$

$$\frac{10}{3} \times \frac{2}{5} = \frac{20}{15}$$

Simplify

$$\frac{20}{15} = \frac{4}{3} = 1\frac{1}{3}$$

$$\boxed{1\frac{1}{3}}$$

11

Show that $2\frac{2}{3} \times 1\frac{7}{8} = 5$

(3 marks)

Write both numbers as improper fractions

$$2\frac{2}{3} = \frac{8}{3} \text{ and } 1\frac{7}{8} = \frac{15}{8}$$

Multiply

$$\frac{8}{3} \times \frac{15}{8} = \frac{120}{24}$$

Simplify

$$\frac{120}{24} = 5, \text{ as required. (Or cancel the 8s first: } \frac{15}{3} = 5.)$$

12

a. Work out $1\frac{3}{4} + 2\frac{5}{6}$

Give your answer as a mixed number in its simplest form.

b. Work out $2\frac{1}{2} \times 1\frac{1}{5}$

(4 marks)

$$\text{a) } 1\frac{3}{4} = \frac{7}{4} \text{ and } 2\frac{5}{6} = \frac{17}{6}. \text{ Using denominator 12: } \frac{7}{4} = \frac{21}{12} \text{ and } \frac{17}{6} = \frac{34}{12}$$

$$\text{a) } \frac{21}{12} + \frac{34}{12} = \frac{55}{12} = 4\frac{7}{12}$$

$$\text{b) } 2\frac{1}{2} = \frac{5}{2} \text{ and } 1\frac{1}{5} = \frac{6}{5}, \text{ so } \frac{5}{2} \times \frac{6}{5} = \frac{30}{10} = 3$$

13

a. Work out $\frac{7}{8} - \frac{2}{5}$ b. Show that $1\frac{2}{3} \times 2\frac{1}{4} = 3\frac{3}{4}$

(5 marks)

a) Use denominator 40

$$\frac{7}{8} = \frac{35}{40} \text{ and } \frac{2}{5} = \frac{16}{40}$$

$$a) \frac{35}{40} - \frac{16}{40} = \frac{19}{40}$$

b) Write as improper fractions

$$1\frac{2}{3} = \frac{5}{3} \text{ and } 2\frac{1}{4} = \frac{9}{4}$$

$$b) \frac{5}{3} \times \frac{9}{4} = \frac{45}{12} = \frac{15}{4} = 3\frac{3}{4}, \text{ as required}$$