

GCSE Maths: Fraction arithmetic with confidence (Higher): worksheet

GCSE Maths - Fractions - Higher - Lesson 3.1

Name: _____

Date: _____

Score: _____

10 questions. Write your answers in the spaces. Answers and step-by-step help are free at websink.site/gcse/maths/ch03-fractions/higher/fraction-arithmetic-with-confidence/

Exercise 3A Fraction arithmetic

Non-calculator

1 Work out. Give each answer as a mixed number or fraction in its simplest form.

(a) $3\frac{1}{5} - 1\frac{3}{4}$

Answer: _____

(b) $2\frac{2}{3} + 4\frac{5}{6}$

Answer: _____

(c) $5\frac{1}{8} - 2\frac{3}{4}$

Answer: _____

(d) $6\frac{2}{9} - 3\frac{5}{6}$

Answer: _____

2 Work out.

(a) $2\frac{1}{4} \times 1\frac{5}{9}$

Answer: _____

(b) $3\frac{3}{5} \div 2\frac{2}{5}$

Answer: _____

(c) $4\frac{1}{2} \times 2\frac{2}{3}$

Answer: _____

(d) $1\frac{7}{8} \div 3\frac{3}{4}$

Answer: _____

3 Work out. Give each answer in its simplest form.

(a) $\frac{2}{3} + \frac{1}{4} \times \frac{2}{5}$

Answer: _____

(b) $(\frac{2}{3} + \frac{1}{4}) \div (\frac{5}{6} - \frac{1}{2})$

Answer: _____

(c) $\frac{3}{4} - \frac{2}{5} \times \frac{5}{6}$

Answer:

(d) $(1\frac{1}{2} - \frac{2}{3})^2$

Answer:

(e) $\frac{1}{1} \div (\frac{1}{2} + \frac{1}{3})$

Answer:

(f) $\frac{3}{4} \div \frac{1}{2} - \frac{2}{3} \div \frac{4}{9}$

Answer:

4 Work out.

(a) $-\frac{3}{4} + \frac{1}{2}$

Answer:

(b) $\frac{1}{3} - \frac{5}{6}$

Answer:

(c) $-\frac{2}{3} \times \frac{9}{10}$

Answer:

(d) $-\frac{5}{8} \div -\frac{15}{16}$

Answer:

5 The sides of a triangle are $2\frac{1}{3}$ cm, $1\frac{3}{4}$ cm and $3\frac{5}{6}$ cm. Work out its perimeter.

Answer:

6 A rectangle is $2\frac{1}{2}$ m by $1\frac{3}{5}$ m. Work out (a) its area, (b) its perimeter.

(a) area

Answer:

(b) perimeter

Answer:

7 Which is bigger: $\frac{3}{4}$ of $\frac{2}{3}$, or $\frac{2}{3}$ of $\frac{3}{4}$? Explain.

Answer:

8 Show that $\frac{3}{7} + \frac{2}{5} = \frac{29}{35}$.

Answer:

9 A tank holds $12\frac{1}{2}$ litres. A jug holds $\frac{3}{4}$ litre. How many full jugs can be filled from the tank, and how much water is left over?

Answer:

10 Challenge. Find two different unit fractions $\frac{1}{a}$ and $\frac{1}{b}$ that add up to $\frac{5}{12}$. (There are two answers.)

Answer:

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