



Addition/Subtraction/ Multiplication/Division of Fractions & Decimals

Question Paper 2

Level	IGCSE
Subject	Maths (0580)
Exam Board	Cambridge International Examinations (CIE)
Paper Type	Extended
Topic	Number
Sub-Topic	Add/Sub/Multiplication/Division of Fractions & Decimals
Booklet	Question Paper 2

Time Allowed: 64 minutes

Score: /53

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	60%	45%	35%	25%	<25%

- 1 Without using a calculator, work out $\frac{6}{7} \div 1\frac{2}{3}$.
Write down all the steps in your working.

Answer [3]

- 2 Write down all your working to show that the following statement is correct.

$$\frac{1 + \frac{8}{9}}{2 + \frac{1}{2}} = \frac{34}{45}$$

Answer

[2]

3 Show that $\left(\frac{1}{10}\right)^2 + \left(\frac{2}{5}\right)^2 = 0.17$.

Write down all the steps in your working.

Answer

[2]

4 Without using a calculator, show that $\left(\frac{49}{16}\right)^{-\frac{3}{2}} = \frac{64}{343}$.

Write down all the steps in your working.

Answer

[2]

- 5 **Without using your calculator**, work out $1\frac{5}{6} + \frac{9}{10}$.

You must show your working and give your answer as a mixed number in its simplest form.

Answer [3]

6 $1\frac{1}{2} + \frac{1}{3} + \frac{1}{4} = \frac{p}{12}$

Work out the value of p .

Show all your working.

Answer $p =$ [2]

- 7 **Without using your calculator**, work out the following.
Show all the steps of your working and give each answer as a fraction in its simplest form.

(a) $\frac{11}{12} - \frac{1}{3}$

Answer(a) [2]

(b) $\frac{1}{4} \div \frac{11}{13}$

Answer(b) [2]

- 8 Write down all the working to show that

$$\frac{\frac{3}{5} + \frac{2}{3}}{\frac{3}{5} \times \frac{2}{3}} = 3\frac{1}{6}$$

Answer

9 Jiwan incorrectly wrote $1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} = 1\frac{3}{9}$.

Show the correct working and write down the answer as a mixed number.

Answer [3]

10 Show that $3^{-2} + 2^{-2} = \frac{13}{36}$.

Write down all the steps of your working.

Answer

[2]

11 Show that $1\frac{5}{9} \div 1\frac{7}{9} = \frac{7}{8}$.

Write down all the steps in your working.

Answer

[2]

12 (a) Find the value of x when $\frac{18}{24} = \frac{27}{x}$.

Answer(a) $x = \dots\dots\dots$ [1]

(b) Show that $\frac{2}{3} \div 1\frac{1}{6} = \frac{4}{7}$.

Write down all the steps in your working.

Answer(b)

[2]

- 13 Write each number correct to 1 significant figure and estimate the value of the calculation.
You must show your working.

$$2.65 \times 4.1758 + 7.917$$

Answer [2]

- 14 Show that $\frac{7}{27} + 1\frac{7}{9} = 2\frac{1}{27}$.

Write down all the steps in your working.

Answer

[2]

15 Write down the number which is 3.6 less than -4.7 .

Answer [1]

16 Show that $3\frac{3}{4} + 1\frac{1}{3} = 5\frac{1}{12}$.

Write down all the steps in your working.

Answer

[2]

17 Write as a single fraction $\frac{3a}{8} + \frac{4}{5}$.

Answer [2]

18 The maximum speed of a car is 252 km/h.

Change this speed into metres per second.

Answer m/s [2]

19 Write $\frac{1}{c} + \frac{1}{d} - \frac{c-d}{cd}$ as a single fraction in its simplest form.

Answer [3]

20 Work out the value of $1 + \frac{2}{3 + \frac{4}{5+6}}$.

Answer [2]

21 $\frac{4c}{5} - \frac{3c}{35} = \frac{10}{7}$. Find c .

Answer $c =$ [2]

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22 (a)

$$\frac{2}{3} + \frac{5}{6} = \frac{x}{2}$$

Find the value of x .

Answer(a) $x = \dots\dots\dots$ [1]

(b)

$$\frac{5}{3} \div \frac{3}{y} = \frac{40}{9}$$

Find the value of y .

Answer(b) $y = \dots\dots\dots$ [1]

23 Work out the value of

$$\frac{-\frac{1}{2} - \frac{3}{8}}{-\frac{1}{2} + \frac{3}{8}}$$

Answer $\dots\dots\dots$ [2]