

11+ Maths Practice Paper

Year 5 · Intermediate

Lesson 3.3: Adding and subtracting fractions

Read this with your child:

1. This paper has **24 questions** in two parts. Work through them in order. The questions get harder as you go.
2. **Part 1** is multiple choice. Choose **one** answer, A, B, C, D or E, and mark it on the separate answer sheet by drawing a firm line through the box next to its letter. If you change your mind, rub the line out completely and mark your new answer.
3. **Part 2** asks you to write your answer. Write it in the boxes on the answer sheet, **one digit in each box**, starting from the left.
4. If a question is hard, leave it and come back to it at the end.
5. You may use rough paper for working out. You may **not** use a calculator.
6. Suggested time: **30 minutes**.

The answer sheet is after the questions. The answers, with a short explanation of each, are at the back for a parent to mark with.

These are original practice questions written by Elite Learners in the style of 11+ entrance tests. They are not produced by, or connected with, GL Assessment or Cambridge University Press & Assessment (CEM).

Example

Work out this sum.

$$\frac{1}{3} + \frac{1}{4} = \boxed{?}$$

A $\frac{2}{7}$

B $\frac{1}{12}$

C $\frac{7}{12}$

D $\frac{2}{12}$

E $\frac{5}{12}$

Answer: C The LCM of 3 and 4 is 12. $\frac{1}{3} = \frac{4}{12}$ and $\frac{1}{4} = \frac{3}{12}$, so the answer is $\frac{7}{12}$.

The answer, C, has already been marked on your answer sheet.

Now turn over and start Part 1.

Part 1: Multiple choice

1

Work out this sum.

$$\frac{2}{5} + \frac{1}{3} = \boxed{?}$$

A $\frac{3}{8}$

B $\frac{3}{15}$

C $\frac{11}{15}$

D $\frac{2}{15}$

E $\frac{8}{15}$

2

Work out this subtraction.

$$\frac{5}{6} - \frac{1}{4} = \boxed{?}$$

A $\frac{1}{2}$

B $\frac{4}{12}$

C $\frac{7}{24}$

D $\frac{1}{12}$

E $\frac{7}{12}$

3

Work out this sum. Give your answer as a mixed number.

$$\frac{3}{4} + \frac{2}{3} = \boxed{?}$$

A $1\frac{5}{12}$

B $\frac{5}{7}$

C $\frac{5}{12}$

D $1\frac{1}{12}$

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

4

Work out this subtraction.

$$\frac{7}{8} - \frac{1}{2} = \boxed{?}$$

A $\frac{6}{8}$

B $\frac{1}{4}$

C $\frac{5}{8}$

D $\frac{3}{8}$

E $\frac{3}{4}$

5

Work out this sum.

$$2\frac{1}{5} + 1\frac{2}{5} = \boxed{?}$$

A $3\frac{3}{10}$

B $3\frac{3}{5}$

C $2\frac{3}{5}$

D $4\frac{3}{5}$

E $3\frac{2}{5}$

6

Work out this subtraction.

$$3\frac{4}{7} - 1\frac{2}{7} = \boxed{?}$$

A $2\frac{6}{7}$

B $4\frac{2}{7}$

C $1\frac{2}{7}$

D $2\frac{1}{7}$

E $2\frac{2}{7}$

7

Work out this sum. Give your answer as a mixed number in its simplest form.

$$\frac{5}{9} + \frac{7}{9} = \boxed{?}$$

A $\frac{12}{18}$

B $1\frac{2}{9}$

C $1\frac{1}{3}$

D $2\frac{1}{3}$

E $1\frac{4}{9}$

8

Sam walks $\frac{1}{2}$ km to school, then $\frac{3}{5}$ km to the park.

How far does he walk altogether?

A $1\frac{1}{10}$ km

B $\frac{4}{7}$ km

C $1\frac{1}{5}$ km

D $\frac{4}{10}$ km

E $2\frac{1}{10}$ km

9

Work out this sum.

$$4\frac{5}{6} + 2\frac{1}{3} = \boxed{?}$$

A $6\frac{1}{6}$

B $6\frac{2}{3}$

C $7\frac{1}{3}$

D $7\frac{1}{6}$

E $8\frac{1}{6}$

10

Which sum has the answer $\frac{3}{4}$?

A $\frac{1}{3} + \frac{1}{4}$

B $\frac{1}{2} + \frac{1}{4}$

C $\frac{2}{8} + \frac{1}{8}$

D $\frac{1}{4} + \frac{1}{4}$

E $\frac{2}{3} + \frac{1}{6}$

11

Work out this subtraction.

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

A $2\frac{1}{2}$

B $3\frac{1}{2}$

C $2\frac{1}{4}$

D $3\frac{1}{4}$

E $2\frac{3}{4}$

12

Work out this sum.

$$\frac{2}{3} + \frac{1}{6} = \boxed{?}$$

A $\frac{3}{9}$

B $\frac{3}{6}$

C $\frac{1}{2}$

D $\frac{5}{12}$

E $\frac{5}{6}$

13

What must be added to $\frac{5}{12}$ to make 1 whole?

A $\frac{5}{12}$

B $\frac{1}{12}$

C $\frac{7}{12}$

D $\frac{7}{24}$

E $\frac{6}{12}$

14

Work out this subtraction. Give your answer in its simplest form.

$$\frac{9}{10} - \frac{2}{5} = \boxed{?}$$

A $\frac{7}{10}$

B $\frac{1}{5}$

C $\frac{3}{10}$

D $\frac{1}{2}$

E $\frac{2}{5}$

15

Work out this sum. Give your answer in its simplest form.

$$1\frac{3}{8} + 2\frac{7}{8} = \boxed{?}$$

A $3\frac{1}{4}$

B $4\frac{1}{4}$

C $4\frac{3}{8}$

D $5\frac{1}{4}$

E $3\frac{5}{8}$

16

Ali has $\frac{7}{8}$ of a bar of chocolate. He gives $\frac{1}{4}$ of a bar to Jo.

How much does Ali have left?

A $\frac{3}{4}$

B $\frac{1}{2}$

C $\frac{1}{8}$

D $\frac{7}{32}$

E $\frac{5}{8}$

17

Work out this sum.

$$\frac{1}{4} + \frac{1}{6} = \boxed{?}$$

A $\frac{5}{12}$

B $\frac{2}{10}$

C $\frac{2}{24}$

D $\frac{1}{5}$

E $\frac{5}{24}$

18

Work out this subtraction.

$$6 - 2\frac{1}{3} = \boxed{?}$$

A $4\frac{1}{3}$

B $4\frac{2}{3}$

C $3\frac{2}{3}$

D $3\frac{1}{3}$

E $8\frac{1}{3}$

Part 2: Write your answer

19

What is the missing number?

$$\frac{1}{2} + \frac{1}{3} = \frac{\boxed{?}}{6}$$

Write your answer in the boxes on the answer sheet, one digit in each box.

20

What is the missing number?

$$\frac{3}{4} - \frac{1}{6} = \frac{\boxed{?}}{12}$$

Write your answer in the boxes on the answer sheet, one digit in each box.

21

What is the missing number?

$$\frac{5}{6} + \frac{3}{4} = 1\frac{\boxed{?}}{12}$$

Write your answer in the boxes on the answer sheet, one digit in each box.

22

What is the missing whole number?

$$3\frac{2}{5} + 1\frac{4}{5} = \boxed{?}\frac{1}{5}$$

Write your answer in the boxes on the answer sheet, one digit in each box.

23

What is the missing number?

$$4\frac{1}{3} - 1\frac{2}{3} = 2\frac{\boxed{?}}{3}$$

Write your answer in the boxes on the answer sheet, one digit in each box.

24

What is the missing number?

$$\frac{7}{10} + \frac{1}{4} = \frac{\boxed{?}}{20}$$

Write your answer in the boxes on the answer sheet, one digit in each box.

Answer sheet

11+ Maths Practice Paper · Year 5 · Lesson 3.3: Adding and subtracting fractions

Name

Draw a firm line through the box next to your answer, like the example.

Part 1: Multiple choice

Ex	A ☐	B ☐	C ☒	D ☐	E ☐
1	A ☐	B ☐	C ☐	D ☐	E ☐
2	A ☐	B ☐	C ☐	D ☐	E ☐
3	A ☐	B ☐	C ☐	D ☐	E ☐
4	A ☐	B ☐	C ☐	D ☐	E ☐
5	A ☐	B ☐	C ☐	D ☐	E ☐
6	A ☐	B ☐	C ☐	D ☐	E ☐
7	A ☐	B ☐	C ☐	D ☐	E ☐
8	A ☐	B ☐	C ☐	D ☐	E ☐
9	A ☐	B ☐	C ☐	D ☐	E ☐
10	A ☐	B ☐	C ☐	D ☐	E ☐
11	A ☐	B ☐	C ☐	D ☐	E ☐
12	A ☐	B ☐	C ☐	D ☐	E ☐
13	A ☐	B ☐	C ☐	D ☐	E ☐
14	A ☐	B ☐	C ☐	D ☐	E ☐
15	A ☐	B ☐	C ☐	D ☐	E ☐
16	A ☐	B ☐	C ☐	D ☐	E ☐
17	A ☐	B ☐	C ☐	D ☐	E ☐
18	A ☐	B ☐	C ☐	D ☐	E ☐

Part 2: Write your answer, one digit in each box

19	
20	
21	
22	
23	
24	

Answers

For a parent to mark with. One mark for each question: the paper is out of 24. Talk through any your child got wrong, using the explanation.

Q	Answer	How to get it
1	C $1\frac{11}{15}$	The LCM of 5 and 3 is 15. $\frac{2}{5} = \frac{6}{15}$ and $\frac{1}{3} = \frac{5}{15}$. $6 + 5 = 11$, so $1\frac{11}{15}$.
2	E $\frac{7}{12}$	The LCM of 6 and 4 is 12. $\frac{5}{6} = \frac{10}{12}$ and $\frac{1}{4} = \frac{3}{12}$. $10 - 3 = 7$, so $\frac{7}{12}$.
3	A $1\frac{5}{12}$	$\frac{3}{4} = \frac{9}{12}$ and $\frac{2}{3} = \frac{8}{12}$. $9 + 8 = 17$, so $1\frac{17}{12} = 1\frac{5}{12}$.
4	D $\frac{3}{8}$	$\frac{1}{2} = \frac{4}{8}$, and $7 - 4 = 3$, so $\frac{3}{8}$.
5	B $3\frac{3}{5}$	Add the wholes: $2 + 1 = 3$. Add the fractions: $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$. So $3\frac{3}{5}$.
6	E $2\frac{2}{7}$	Take away the wholes: $3 - 1 = 2$. Take away the fractions: $\frac{4}{7} - \frac{2}{7} = \frac{2}{7}$. So $2\frac{2}{7}$.
7	C $1\frac{1}{3}$	$5 + 7 = 12$, so $\frac{12}{9} = 1\frac{4}{3}$. Simplify the fraction part (divide by 3): $1\frac{1}{3}$.
8	A $1\frac{1}{10}$ km	$\frac{1}{2} = \frac{5}{10}$ and $\frac{3}{5} = \frac{6}{10}$. $5 + 6 = 11$, so $1\frac{11}{10} = 1\frac{1}{10}$ km.
9	D $7\frac{1}{6}$	Wholes: $4 + 2 = 6$. Fractions: $\frac{5}{6} + \frac{2}{6} = \frac{7}{6} = 1\frac{1}{6}$. Carry the whole: $7\frac{1}{6}$.
10	B $\frac{1}{2} + \frac{1}{4}$	$\frac{1}{2} = \frac{2}{4}$, and $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$. The others make $\frac{7}{12}$, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{5}{6}$.
11	A $2\frac{1}{2}$	$\frac{1}{4}$ is less than $\frac{3}{4}$, so borrow a whole: $5\frac{1}{4} = 4\frac{5}{4}$. Then $4 - 2 = 2$ and $\frac{5}{4} - \frac{3}{4} = \frac{2}{4}$. So $2\frac{2}{4} = 2\frac{1}{2}$.
12	E $\frac{5}{6}$	$\frac{2}{3} = \frac{4}{6}$, and $4 + 1 = 5$, so $\frac{5}{6}$.
13	C $\frac{7}{12}$	1 whole is $\frac{12}{12}$, and $12 - 5 = 7$, so $\frac{7}{12}$.
14	D $\frac{1}{2}$	$\frac{2}{5} = \frac{4}{10}$, and $9 - 4 = 5$, so $\frac{5}{10}$, which simplifies to $\frac{1}{2}$.
15	B $4\frac{1}{4}$	Wholes: $1 + 2 = 3$. Fractions: $\frac{3}{8} + \frac{7}{8} = \frac{10}{8} = 1\frac{2}{8}$. Carry the whole: $4\frac{2}{8} = 4\frac{1}{4}$.
16	E $\frac{5}{8}$	$\frac{1}{4} = \frac{2}{8}$, so $\frac{7}{8} - \frac{2}{8} = \frac{5}{8}$ of a bar.
17	A $\frac{5}{12}$	The LCM of 4 and 6 is 12 (24 works too, but 12 is smaller). $\frac{3}{12} + \frac{2}{12} = \frac{5}{12}$.
18	C $3\frac{2}{3}$	Borrow a whole from 6: $6 = 5\frac{3}{3}$. Then $5 - 2 = 3$ and $\frac{3}{3} - \frac{1}{3} = \frac{2}{3}$. So $3\frac{2}{3}$.
19	5	$\frac{1}{2} = \frac{3}{6}$ and $\frac{1}{3} = \frac{2}{6}$. $3 + 2 = 5$.
20	7	$\frac{3}{4} = \frac{9}{12}$ and $\frac{1}{6} = \frac{2}{12}$. $9 - 2 = 7$.
21	7	$\frac{10}{12} + \frac{9}{12} = \frac{19}{12} = 1\frac{7}{12}$.
22	5	Wholes: $3 + 1 = 4$. Fractions: $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$. Carry the whole: $5\frac{1}{5}$.
23	2	Borrow a whole: $4\frac{1}{3} = 3\frac{4}{3}$. Then $3 - 1 = 2$ and $\frac{4}{3} - \frac{2}{3} = \frac{2}{3}$. So $2\frac{2}{3}$.
24	19	The LCM of 10 and 4 is 20. $\frac{14}{20} + \frac{5}{20} = \frac{19}{20}$.

Score: out of 24