

11+ Maths Practice Paper

Year 5 · Intermediate

Lesson 3.4: Multiplying and dividing 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 calculation.

$$5 \times \frac{3}{8} = \boxed{?}$$

A $1 \frac{5}{8}$

B $\frac{15}{40}$

C $1 \frac{7}{8}$

D $2 \frac{7}{8}$

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

Answer: C $5 \times 3 = 15$, so $\frac{15}{8}$. $15 \div 8 = 1 \text{ r } 7$, so $1 \frac{7}{8}$.

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 calculation.

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

A $\frac{6}{8}$

B $\frac{10}{12}$

C $\frac{8}{15}$

D $\frac{2}{15}$

E $\frac{6}{15}$

2

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

$$4 \times \frac{3}{10} = \boxed{?}$$

A $\frac{12}{40}$

B $1\frac{2}{5}$

C $\frac{7}{10}$

D $1\frac{3}{10}$

E $1\frac{1}{5}$

3

What is $\frac{3}{4}$ of $\frac{2}{5}$? Give your answer in its simplest form.

A $\frac{3}{10}$

B $\frac{5}{9}$

C $\frac{6}{9}$

D $\frac{1}{2}$

E $\frac{3}{20}$

4

Work out this calculation.

$$\frac{5}{6} \div 2 = \boxed{?}$$

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

B $\frac{5}{8}$

C $\frac{1}{2}$

D $\frac{5}{12}$

E $\frac{1}{3}$

5

Work out this calculation.

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

A $6\frac{1}{4}$

B $6\frac{3}{4}$

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

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

E $7\frac{3}{4}$

6

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

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

A $\frac{9}{11}$

B $\frac{7}{24}$

C $\frac{2}{3}$

D $\frac{5}{12}$

E $\frac{7}{12}$

7

Each lap of a track is $\frac{3}{8}$ km. Sam runs 4 laps.

How far does he run? Give your answer in its simplest form.

A $\frac{12}{32}$ km

B $1\frac{3}{8}$ km

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

D $\frac{7}{8}$ km

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

8

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

$$\frac{4}{9} \div 4 = \boxed{?}$$

A $\frac{1}{9}$

B $1\frac{7}{9}$

C $\frac{4}{13}$

D $\frac{1}{36}$

E $\frac{4}{9}$

9

Work out this calculation.

$$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \boxed{?}$$

A $\frac{3}{6}$

B $\frac{3}{8}$

C $\frac{1}{6}$

D $\frac{1}{8}$

E $\frac{1}{4}$

10

A recipe uses $\frac{2}{3}$ of a cup of sugar. Ana makes half of the recipe.

How much sugar does she use? Give your answer in its simplest form.

- A $\frac{2}{3}$ of a cup B $\frac{1}{3}$ of a cup C $1\frac{1}{3}$ cups D $\frac{3}{5}$ of a cup E $\frac{1}{6}$ of a cup

11

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

$$6 \times \frac{5}{12} = \boxed{?}$$

- A $2\frac{1}{2}$ B $\frac{30}{72}$ C $2\frac{5}{12}$ D $3\frac{1}{2}$ E $1\frac{1}{2}$

12

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

$$\frac{3}{5} \times \frac{5}{6} = \boxed{?}$$

- A $\frac{8}{11}$ B $1\frac{4}{11}$ C $\frac{2}{5}$ D $\frac{1}{3}$ E $\frac{1}{2}$

13

Which calculation has the answer $\frac{3}{8}$?

- A $\frac{3}{4} \times 2$ B $3 \times \frac{1}{4}$ C $\frac{3}{4} \div 2$ D $\frac{3}{8} \times 3$ E $\frac{1}{4} \div 3$

14

Work out this calculation.

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

- A $4\frac{2}{3}$ B $6\frac{1}{3}$ C $5\frac{2}{3}$ D $6\frac{2}{3}$ E $7\frac{2}{3}$

15

$\frac{2}{5}$ of a garden is grass. Half of the grass has flowers growing in it.

What fraction of the whole garden has flowers?

A $\frac{1}{10}$

B $\frac{1}{5}$

C $\frac{4}{5}$

D $\frac{3}{7}$

E $\frac{2}{5}$

16

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

$$\frac{9}{10} \div 3 = \boxed{?}$$

A $2\frac{7}{10}$

B $\frac{9}{13}$

C $\frac{1}{10}$

D $\frac{1}{3}$

E $\frac{3}{10}$

17

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

$$5 \times \frac{7}{10} = \boxed{?}$$

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

B $\frac{35}{50}$

C $3\frac{7}{10}$

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

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

18

What fraction must $\frac{2}{3}$ be multiplied by to give $\frac{8}{15}$?

A $\frac{6}{12}$

B $\frac{4}{12}$

C $\frac{4}{5}$

D $\frac{6}{15}$

E $\frac{10}{18}$

Part 2: Write your answer

19

What is the missing number?

$$3 \times \frac{4}{11} = \frac{\boxed{?}}{11}$$

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

20

What is the missing number?

$$\frac{3}{4} \times \frac{5}{7} = \frac{\boxed{?}}{28}$$

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

21

What is the missing number?

$$\frac{5}{8} \div 3 = \frac{5}{\boxed{?}}$$

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

22

What is the missing number?

$$7 \times \frac{3}{4} = 5\frac{\boxed{?}}{4}$$

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

23

What is the missing number?

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

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

24

What is the missing number?

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

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

Answer sheet

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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 $\frac{8}{15}$	Multiply the tops ($2 \times 4 = 8$) and the bottoms ($3 \times 5 = 15$): $\frac{8}{15}$.
2	E $1 \frac{1}{5}$	$4 \times 3 = 12$, so $\frac{12}{10} = 1 \frac{2}{10}$. Simplify the fraction part: $1 \frac{1}{5}$.
3	A $\frac{3}{10}$	"Of" means $\times$. Tops: $3 \times 2 = 6$. Bottoms: $4 \times 5 = 20$. $\frac{6}{20} = \frac{3}{10}$.
4	D $\frac{5}{12}$	Sharing into 2: the top stays 5 and the bottom is $6 \times 2 = 12$. $\frac{5}{12}$.
5	B $6 \frac{3}{4}$	$2 \times 3 = 6$ and $\frac{1}{4} \times 3 = \frac{3}{4}$, so $6 \frac{3}{4}$. (Or $\frac{9}{4} \times 3 = \frac{27}{4} = 6 \frac{3}{4}$.)
6	E $\frac{7}{12}$	Tops: $7 \times 2 = 14$. Bottoms: $8 \times 3 = 24$. $\frac{14}{24} = \frac{7}{12}$.
7	C $1 \frac{1}{2}$ km	$4 \times \frac{3}{8} = \frac{12}{8} = 1 \frac{4}{8} = 1 \frac{1}{2}$ km.
8	A $\frac{1}{9}$	$4 \div 4 = 1$, so divide the top: $\frac{1}{9}$. (Or $\frac{4}{36}$, which simplifies to $\frac{1}{9}$.)
9	D $\frac{1}{8}$	Tops: $1 \times 1 \times 1 = 1$. Bottoms: $2 \times 2 \times 2 = 8$. $\frac{1}{8}$.
10	B $\frac{1}{3}$ of a cup	Half of $\frac{2}{3}$ is $\frac{1}{2} \times \frac{2}{3} = \frac{2}{6} = \frac{1}{3}$ of a cup.
11	A $2 \frac{1}{2}$	$6 \times 5 = 30$, so $\frac{30}{12} = 2 \frac{6}{12} = 2 \frac{1}{2}$.
12	E $\frac{1}{2}$	Tops: $3 \times 5 = 15$. Bottoms: $5 \times 6 = 30$. $\frac{15}{30} = \frac{1}{2}$.
13	C $\frac{3}{4} \div 2$	$\frac{3}{4} \div 2$: the top stays 3 and the bottom is $4 \times 2 = 8$, so $\frac{3}{8}$. The others make $1 \frac{1}{2}$, $\frac{3}{4}$, $1 \frac{1}{8}$ and $\frac{1}{12}$.
14	D $6 \frac{2}{3}$	$1 \frac{2}{3} = \frac{5}{3}$. $5 \times 4 = 20$, so $\frac{20}{3} = 6 \frac{2}{3}$.
15	B $\frac{1}{5}$	Half of $\frac{2}{5}$ is $\frac{1}{2} \times \frac{2}{5} = \frac{2}{10} = \frac{1}{5}$.
16	E $\frac{3}{10}$	$9 \div 3 = 3$, so divide the top: $\frac{3}{10}$. (Or $\frac{9}{30} = \frac{3}{10}$.)
17	A $3 \frac{1}{2}$	$5 \times 7 = 35$, so $\frac{35}{10} = 3 \frac{5}{10} = 3 \frac{1}{2}$.
18	C $\frac{4}{5}$	Tops: $2 \times ? = 8$, so 4. Bottoms: $3 \times ? = 15$, so 5. The fraction is $\frac{4}{5}$.
19	12	Multiply the top: $3 \times 4 = 12$.
20	15	Tops: $3 \times 5 = 15$. Bottoms: $4 \times 7 = 28$.
21	24	The top stays 5. Multiply the bottom: $8 \times 3 = 24$.
22	1	$7 \times 3 = 21$, so $\frac{21}{4}$. $21 \div 4 = 5$ r 1, so $5 \frac{1}{4}$.
23	4	Tops: $2 \times 3 = 6$. Bottoms: $3 \times 8 = 24$. $\frac{6}{24} = \frac{1}{4}$.
24	5	$1 \frac{4}{7} = \frac{11}{7}$. $11 \times 3 = 33$, so $\frac{33}{7} = 4 \frac{5}{7}$.

Score: out of 24