

11+ Maths Practice Paper

Year 6 · Advanced

Lesson 3.6: Decimal operations

Read this with your child:

1. This paper has **27 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: **35 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

What is 0.3×0.4 ?

A 1.2

B 12

C 0.12

D 0.012

E 0.7

Answer: C $3 \times 4 = 12$. Decimal places: $1 + 1 = 2$. So 0.12.

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 addition.

$$\begin{array}{r} 14.6 \\ 7.85 \\ + 0.9 \\ \hline \\ \hline \end{array}$$

A 22.35

B 23.35

C 15.67

D 23.45

E 24.35

2

Work out this subtraction.

$$\begin{array}{r} 20 \\ - 7.46 \\ \hline \\ \hline \end{array}$$

A 13.54

B 7.46

C 12.46

D 12.54

E 13.46

3

What is 1.2×0.3 ?

A 3.6

B 0.036

C 36

D 1.5

E 0.36

4

What is 0.04×0.3 ?

A 0.12

B 0.0012

C 1.2

D 0.34

E 0.012

5

What is $3.6 \div 0.4$?

A 9

B 0.9

C 90

D 1.44

E 0.09

6

Work out this division.

$$4 \overline{) 7.40}$$

- A 1.85 B 1.8 C 18.5 D 1.75 E 0.185

7

What is 0.5×0.4 ?

- A 2 B 0.02 C 0.9 D 0.2 E 20

8

What is $2.4 \div 0.08$?

- A 3 B 0.3 C 300 D 0.03 E 30

9

3 pens cost £2.85 altogether.

How much do 5 pens cost?

- A £4.25 B £14.25 C £0.95 D £4.75 E £5.70

10

What is 0.07×600 ?

- A 42 B 4.2 C 420 D 0.42 E 4,200

11

What is $9 \div 8$?

- A 1.1 B 1.125 C 1 r 1 D 1.25 E 11.25

12

What is the missing number? $? \times 0.3 = 2.4$

- A 0.8 B 80 C 8 D 0.72 E 7.2

13

Which of these is the largest?

- A $0.3 \div 0.3$ B 0.3×0.3 C $0.3 + 0.3$ D 3×0.03 E $0.9 \div 3$

14

A rope 7.2 metres long is cut into pieces that are each 0.6 metres long.

How many pieces are there?

- A** 1.2 **B** 4.32 **C** 120 **D** 13 **E** 12

15

What is 4.8×2.5 ?

- A** 1.2 **B** 12 **C** 120 **D** 7.3 **E** 0.12

16

What is the bottom number?

$$\begin{array}{r} 6 . \boxed{?} 4 \\ - 2 . 8 \boxed{?} \\ \hline 3 . 7 5 \end{array}$$

- A** 2.81 **B** 2.99 **C** 2.89 **D** 2.79 **E** 2.86

17

Cheese costs £8.50 for each kilogram.

How much does 0.6 kg of cheese cost?

- A** £51.00 **B** £5.10 **C** £0.51 **D** £4.80 **E** £9.10

18

What is $1.5 \div 0.03$?

- A** 5 **B** 50 **C** 0.5 **D** 500 **E** 0.05

19

Jo has £20. She buys 3 books at £4.65 each.

How much change does she get?

- A** £6.95 **B** £7.05 **C** £15.35 **D** £6.05 **E** £6.15

20

What is $7 \div 0.25$?**A** 28**B** 2.8**C** 1.75**D** 280**E** 0.28

21

 $23 \times 47 = 1081$ **Use this to work out 2.3×0.47 .****A** 10.81**B** 108.1**C** 1.081**D** 0.1081**E** 1.81**Part 2: Write your answer**

22

What is $0.8 \times 0.5 \times 10$?*Write your answer in the boxes on the answer sheet, one digit in each box.*

23

What is $4.2 \div 0.7$?*Write your answer in the boxes on the answer sheet, one digit in each box.*

24

A glass holds 0.25 litres.

How many glasses can be filled from a 3 litre jug?*Write your answer in the boxes on the answer sheet, one digit in each box.*

25

What is 0.12×50 ?*Write your answer in the boxes on the answer sheet, one digit in each box.*

26

What is the missing number? $? \div 0.4 = 35$ *Write your answer in the boxes on the answer sheet, one digit in each box.*

27

What is the missing digit?

$$\begin{array}{r} 4 . \boxed{?} 6 \\ + 3 . 7 9 \\ \hline 8 . 1 5 \end{array}$$

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

Answer sheet

11+ Maths Practice Paper · Year 6 · Lesson 3.6: Decimal operations

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 ☐
19	A ☐	B ☐	C ☐	D ☐	E ☐
20	A ☐	B ☐	C ☐	D ☐	E ☐
21	A ☐	B ☐	C ☐	D ☐	E ☐

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

22		25	
23		26	
24		27	

Answers

For a parent to mark with. One mark for each question: the paper is out of 27. Talk through any your child got wrong, using the explanation.

Q	Answer	How to get it
1	B 23.35	Line up all three points: $14.60 + 7.85 + 0.90 = 23.35$.
2	D 12.54	Write 20 as 20.00 and exchange across the zeros: $20.00 - 7.46 = 12.54$.
3	E 0.36	$12 \times 3 = 36$. Decimal places: $1 + 1 = 2$. So 0.36.
4	E 0.012	$4 \times 3 = 12$. Decimal places: $2 + 1 = 3$, so put in a zero: 0.012.
5	A 9	Multiply both by 10: $36 \div 4 = 9$.
6	A 1.85	$7 \div 4 = 1 \text{ r } 3$, $34 \div 4 = 8 \text{ r } 2$. Write a 0: $20 \div 4 = 5$. So 1.85.
7	D 0.2	$5 \times 4 = 20$. Decimal places: 2. So 0.20, which is 0.2.
8	E 30	Multiply both by 100: $240 \div 8 = 30$.
9	D £4.75	One pen: $\text{£}2.85 \div 3 = \text{£}0.95$. Five pens: $\text{£}0.95 \times 5 = \text{£}4.75$.
10	A 42	$0.07 \times 100 = 7$, and $7 \times 6 = 42$.
11	B 1.125	Write 9 as 9.000. $9 \div 8 = 1 \text{ r } 1$, then $10 \div 8 = 1 \text{ r } 2$, $20 \div 8 = 2 \text{ r } 4$, $40 \div 8 = 5$. So 1.125.
12	C 8	Use the inverse: $2.4 \div 0.3$. Multiply both by 10: $24 \div 3 = 8$.
13	A $0.3 \div 0.3$	$0.3 \times 0.3 = 0.09$, $0.3 + 0.3 = 0.6$, $0.3 \div 0.3 = 1$, $3 \times 0.03 = 0.09$ and $0.9 \div 3 = 0.3$. The largest is 1.
14	E 12	$7.2 \div 0.6$: multiply both by 10, $72 \div 6 = 12$.
15	B 12	$48 \times 25 = 1200$. Decimal places: $1 + 1 = 2$, so 12.00, which is 12.
16	C 2.89	Use the inverse: $3.75 + 2.8? = 6.74$. Hundredths: $5 + ?$ ends in 4, so $? = 9$. $3.75 + 2.89 = 6.64$.
17	B £5.10	$\text{£}8.50 \times 0.6$: $85 \times 6 = 510$, and 2 decimal places give £5.10.
18	B 50	Multiply both by 100: $150 \div 3 = 50$.
19	D £6.05	$3 \times \text{£}4.65 = \text{£}13.95$. Then $\text{£}20.00 - \text{£}13.95 = \text{£}6.05$.
20	A 28	Multiply both by 100: $700 \div 25 = 28$.
21	C 1.081	Decimal places: $1 + 2 = 3$. So 1081 becomes 1.081.
22	4	$0.8 \times 0.5 = 0.40$, which is 0.4. Then $0.4 \times 10 = 4$.
23	6	Multiply both by 10: $42 \div 7 = 6$.
24	12	$3 \div 0.25$: multiply both by 100, $300 \div 25 = 12$.
25	6	$12 \times 50 = 600$, and 2 decimal places give 6.00, which is 6.
26	14	Use the inverse: 35×0.4 . $35 \times 4 = 140$, and 1 decimal place gives 14.0, which is 14.

Q	Answer	How to get it
27	3	Hundredths: $6 + 9 = 15$, carry 1. Tenths: $? + 7 + 1$ ends in 1, so $? = 3$. Check: $4.36 + 3.79 = 8.15$.

Score: out of 27