

11+ Maths Practice Paper

Year 6 · Advanced

Lesson 2.2: Advanced long multiplication

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

Work out this multiplication.

$$\begin{array}{r} 1427 \\ \times 23 \\ \hline \\ \hline \end{array}$$

- A** 32,721 **B** 32,811 **C** 7,135 **D** 32,821 **E** 33,821

Answer: D Row 1: $1,427 \times 3 = 4,281$. Row 2: $1,427 \times 20 = 28,540$. Add: $4,281 + 28,540 = 32,821$.

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

Now turn over and start Part 1.

Part 1: Multiple choice

1

Work out this multiplication.

$$\begin{array}{r} 4213 \\ \times 3 \\ \hline \\ \hline \end{array}$$

- A** 12,629 **B** 12,539 **C** 12,639 **D** 4,216 **E** 13,639

2

Work out this multiplication.

$$\begin{array}{r} 763 \\ \times 8 \\ \hline \\ \hline \end{array}$$

- A** 6,104 **B** 5,684 **C** 6,004 **D** 6,114 **E** 6,204

3

Work out this multiplication.

$$\begin{array}{r} 524 \\ \times 36 \\ \hline \\ \hline \end{array}$$

- A** 4,716 **B** 18,764 **C** 17,864 **D** 18,874 **E** 18,864

4

Work out this multiplication.

$$\begin{array}{r} 5607 \\ \times 9 \\ \hline \end{array}$$

- A 50,363 B 50,463 C 45,403 D 50,453 E 51,463

5

Which is the best estimate for $4,876 \times 31$?

- A 15,000 B 1,500,000 C 120,000 D 150,000 E 4,907

6

Work out this multiplication.

$$\begin{array}{r} 3256 \\ \times 47 \\ \hline \end{array}$$

- A 153,032 B 35,815 C 152,032 D 153,042 E 143,032

7

Look at this long multiplication.

What number goes in the second row?

$$\begin{array}{r} 2645 \\ \times 38 \\ \hline 21160 \\ + \boxed{?} \boxed{?} \boxed{?} \boxed{?} \boxed{?} \\ \hline 100510 \end{array}$$

- A 79,530 B 79,035 C 79,350 D 73,950 E 97,350

8

Work out this multiplication.

$$\begin{array}{r}
 7084 \\
 \times \quad 26 \\
 \hline
 \\
 \hline
 \end{array}$$

- A 56,672 B 184,084 C 183,184 D 184,194 E 184,184

9

What is the missing digit?

$$\begin{array}{r}
 4 \boxed{?} 3 \\
 \times \quad 7 \\
 \hline
 3171 \\
 \hline
 \end{array}$$

- A 6 B 4 C 2 D 5 E 3

10

Leo worked out $1,526 \times 34$ and got 10,682.

What mistake did Leo make?

- A He added the two rows wrongly
 B He left out the zero placeholder
 C He forgot to carry in row 1
 D He made no mistake
 E He added a carry before multiplying

11

Work out this multiplication.

$$\begin{array}{r}
 6483 \\
 \times \quad 59 \\
 \hline
 \\
 \hline
 \end{array}$$

- A 382,397 B 90,762 C 381,497 D 382,487 E 382,497

12

Some digits in this long multiplication are missing.

What is the top number?

$$\begin{array}{r}
 3 \boxed{?} 4 \\
 \times \quad 27 \\
 \hline
 2 \boxed{?} 08 \\
 + 6880 \\
 \hline
 92 \boxed{?} 8
 \end{array}$$

A 314

B 324

C 334

D 344

E 354

13

Work out this multiplication.

$$\begin{array}{r}
 9999 \\
 \times \quad 12 \\
 \hline
 \\
 \hline
 \end{array}$$

A 119,988

B 119,888

C 120,988

D 29,997

E 109,988

14

Which calculation has the biggest answer?

A 87×64 B 93×59 C 78×72 D 69×81 E 96×57

15

Work out this multiplication.

$$\begin{array}{r}
 4705 \\
 \times \quad 63 \\
 \hline
 \\
 \hline
 \end{array}$$

A 296,315

B 296,415

C 42,345

D 295,415

E 296,425

16

Which of these could be the answer to $3,862 \times 47$?

A 18,154

B 181,512

C 1,815,144

D 281,514

E 181,514

17

Work out this multiplication.

$$\begin{array}{r}
 5329 \\
 \times \quad 78 \\
 \hline
 \hline
 \end{array}$$

A 415,562

B 79,935

C 414,662

D 415,662

E 416,662

18

What is the missing digit?

$$\begin{array}{r}
 2 \boxed{?} 47 \\
 \times \quad 8 \\
 \hline
 18776
 \end{array}$$

A 2

B 3

C 4

D 8

E 6

19

Some digits in this long multiplication are missing.

What is the top number?

$$\begin{array}{r}
 1 \boxed{?} 6 \\
 \times \quad 34 \\
 \hline
 7 \boxed{?} 4 \\
 + 5 \boxed{?} 80 \\
 \hline
 6 \boxed{?} 24
 \end{array}$$

A 186

B 176

C 196

D 166

E 156

20

Work out this multiplication.

$$\begin{array}{r}
 8076 \\
 \times \quad 94 \\
 \hline
 \\
 \hline
 \end{array}$$

A 759,044

B 759,244

C 759,144

D 104,988

E 769,144

Part 2: Write your answer

21

Work out this multiplication.

$$\begin{array}{r}
 3857 \\
 \times \quad 6 \\
 \hline
 \\
 \hline
 \end{array}$$

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

22

Work out this multiplication.

$$\begin{array}{r}
 726 \\
 \times \quad 48 \\
 \hline
 \\
 \hline
 \end{array}$$

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

23

Work out this multiplication.

$$\begin{array}{r}
 2094 \\
 \times \quad 37 \\
 \hline
 \\
 \hline
 \end{array}$$

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

24

Work out this multiplication.

$$\begin{array}{r}
 6358 \\
 \times \quad 74 \\
 \hline
 \\
 \hline
 \end{array}$$

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

25

What is the missing digit?

$$\begin{array}{r}
 5 \boxed{?} 8 \\
 \times \quad 9 \\
 \hline
 4752
 \end{array}$$

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

26

Look at this long multiplication.

What number goes in the second row?

$$\begin{array}{r}
 4327 \\
 \times \quad 56 \\
 \hline
 25962 \\
 + \boxed{?}\boxed{?}\boxed{?}\boxed{?}\boxed{?}\boxed{?} \\
 \hline
 242312
 \end{array}$$

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

27

Work out this multiplication.

$$\begin{array}{r} 9086 \\ \times 58 \\ \hline \\ \hline \end{array}$$

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

Answer sheet

11+ Maths Practice Paper · Year 6 · Lesson 2.2: Advanced long multiplication

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 ☐

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

21						
22						
23						
24						
25						
26						
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	C 12,639	Ones: $3 \times 3 = 9$. Tens: $1 \times 3 = 3$. Hundreds: $2 \times 3 = 6$. Thousands: $4 \times 3 = 12$. So 12,639.
2	A 6,104	Ones: $3 \times 8 = 24$, carry 2. Tens: $6 \times 8 = 48$, $+ 2 = 50$, carry 5. Hundreds: $7 \times 8 = 56$, $+ 5 = 61$. So 6,104.
3	E 18,864	Row 1: $524 \times 6 = 3,144$. Row 2: $524 \times 30 = 15,720$. Add: $3,144 + 15,720 = 18,864$.
4	B 50,463	Ones: $7 \times 9 = 63$, carry 6. Tens: $0 \times 9 = 0$, $+ 6 = 6$. Hundreds: $6 \times 9 = 54$, carry 5. Thousands: $5 \times 9 = 45$, $+ 5 = 50$. So 50,463.
5	D 150,000	4,876 is about 5,000 and 31 is about 30. $5,000 \times 30 = 150,000$. (The real answer is 151,156.)
6	A 153,032	Row 1: $3,256 \times 7 = 22,792$. Row 2: $3,256 \times 40 = 130,240$. Add: $22,792 + 130,240 = 153,032$.
7	C 79,350	The second row is $2,645 \times 30$: a 0 placeholder, then $2,645 \times 3 = 7,935$. So 79,350. Check: $21,160 + 79,350 = 100,510$.
8	E 184,184	Row 1: $7,084 \times 6 = 42,504$. Row 2: $7,084 \times 20 = 141,680$. Add: $42,504 + 141,680 = 184,184$.
9	D 5	Ones: $3 \times 7 = 21$, carry 2. Tens: $? \times 7 + 2$ must end in 7, so $? \times 7$ ends in 5: $? = 5$. Check: $453 \times 7 = 3,171$.
10	B He left out the zero placeholder	Row 1 is $1,526 \times 4 = 6,104$. Row 2 should be $1,526 \times 30 = 45,780$, but Leo wrote 4,578. $6,104 + 4,578 = 10,682$. The right answer is $6,104 + 45,780 = 51,884$.
11	E 382,497	Row 1: $6,483 \times 9 = 58,347$. Row 2: $6,483 \times 50 = 324,150$. Add: $58,347 + 324,150 = 382,497$.
12	D 344	Try the options in the working. $344 \times 7 = 2,408$ (fits 2?08), $344 \times 20 = 6,880$ (fits) and $2,408 + 6,880 = 9,288$ (fits 92?8). The others do not fit: 334×20 is 6,680, not 6,880.
13	A 119,988	Row 1: $9,999 \times 2 = 19,998$. Row 2: $9,999 \times 10 = 99,990$. Add: $19,998 + 99,990 = 119,988$.
14	C 78×72	$78 \times 72 = 5,616$. The others make 5,568, 5,487, 5,589 and 5,472.
15	B 296,415	Row 1: $4,705 \times 3 = 14,115$. Row 2: $4,705 \times 60 = 282,300$. Add: $14,115 + 282,300 = 296,415$.
16	E 181,514	Estimate: $4,000 \times 50 = 200,000$, and the real answer is a bit less. And $2 \times 7 = 14$, so the answer ends in 4. Only 181,514 is the right size and ends in 4.
17	D 415,662	Row 1: $5,329 \times 8 = 42,632$. Row 2: $5,329 \times 70 = 373,030$. Add: $42,632 + 373,030 = 415,662$.

Q	Answer	How to get it
18	B 3	Ones: $7 \times 8 = 56$, carry 5. Tens: $4 \times 8 = 32$, $+ 5 = 37$, carry 3. Hundreds: $? \times 8 + 3$ must end in 7, so $? \times 8$ ends in 4: 3 (24) or 8 (64). Only 3 makes the answer start 18: $2,347 \times 8 = 18,776$.
19	A 186	Try the options in the working. $186 \times 4 = 744$ (fits 7?4), $186 \times 30 = 5,580$ (fits 5?80) and $744 + 5,580 = 6,324$ (fits 6?24). The others do not fit: $176 \times 4 = 704$, but $176 \times 30 = 5,280$, and $704 + 5,280 = 5,984$.
20	C 759,144	Row 1: $8,076 \times 4 = 32,304$. Row 2: $8,076 \times 90 = 726,840$. Add: $32,304 + 726,840 = 759,144$.
21	23,142	Ones: $7 \times 6 = 42$, carry 4. Tens: $5 \times 6 = 30$, $+ 4 = 34$, carry 3. Hundreds: $8 \times 6 = 48$, $+ 3 = 51$, carry 5. Thousands: $3 \times 6 = 18$, $+ 5 = 23$. So 23,142.
22	34,848	Row 1: $726 \times 8 = 5,808$. Row 2: $726 \times 40 = 29,040$. Add: $5,808 + 29,040 = 34,848$.
23	77,478	Row 1: $2,094 \times 7 = 14,658$. Row 2: $2,094 \times 30 = 62,820$. Add: $14,658 + 62,820 = 77,478$.
24	470,492	Row 1: $6,358 \times 4 = 25,432$. Row 2: $6,358 \times 70 = 445,060$. Add: $25,432 + 445,060 = 470,492$.
25	2	Ones: $8 \times 9 = 72$, carry 7. Tens: $? \times 9 + 7$ must end in 5, so $? \times 9$ ends in 8: $? = 2$. Check: $528 \times 9 = 4,752$.
26	216,350	The second row is $4,327 \times 50$: a 0 placeholder, then $4,327 \times 5 = 21,635$. So 216,350. Check: $25,962 + 216,350 = 242,312$.
27	526,988	Row 1: $9,086 \times 8 = 72,688$. Row 2: $9,086 \times 50 = 454,300$. Add: $72,688 + 454,300 = 526,988$.

Score: out of 27