

11+ Maths Practice Paper

Year 5 · Intermediate

Lesson 2.1: Column addition and subtraction puzzles

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 addition.

$$\begin{array}{r} 4\ 5\ 2\ 6 \\ +\ 2\ 3\ 1\ 8 \\ \hline \\ \hline \end{array}$$

A 6,834

B 6,744

C 6,844

D 2,208

E 6,843

Answer: C Ones: $6 + 8 = 14$, carry 1. Tens: $2 + 1 + 1 = 4$. Hundreds: $5 + 3 = 8$. Thousands: $4 + 2 = 6$. So 6,844.

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.

$$\begin{array}{r} 5\ 2\ 3\ 4 \\ +\ 3\ 4\ 5\ 2 \\ \hline \\ \hline \end{array}$$

A 8,686

B 8,676

C 8,586

D 1,782

E 8,696

2

Work out this subtraction.

$$\begin{array}{r} 7\ 8\ 6\ 5 \\ -\ 3\ 4\ 2\ 1 \\ \hline \\ \hline \end{array}$$

A 4,454

B 4,444

C 4,344

D 11,286

E 4,446

3

Work out this addition.

$$\begin{array}{r} 6\ 5\ 8\ 7 \\ +\ 2\ 7\ 4\ 6 \\ \hline \\ \hline \end{array}$$

A 8,223

B 9,323

C 9,233

D 9,333

E 3,841

4

$$7,342 - 2,815 = 4,527$$

Which of these is also true?

A $4,527 - 2,815 = 7,342$

B $7,342 + 2,815 = 4,527$

C $4,527 + 2,815 = 7,342$

D $2,815 - 4,527 = 7,342$

E $2,815 + 7,342 = 4,527$

5

Work out this subtraction.

$$\begin{array}{r} 8\ 4\ 0\ 3 \\ -\ 5\ 2\ 6\ 7 \\ \hline \\ \hline \end{array}$$

A 3,264

B 3,246

C 3,146

D 13,670

E 3,136

6

Work out this addition.

$$\begin{array}{r} 4\ 5\ 6\ 1\ 7 \\ +\ 2\ 3\ 2\ 5\ 8 \\ \hline \\ \hline \end{array}$$

A 68,875

B 68,865

C 68,775

D 69,875

E 22,359

7

What is the missing number? $? + 1,456 = 3,812$

A 5,268

B 2,466

C 2,356

D 2,456

E 2,346

8

What is the missing digit?

$$\begin{array}{r}
 5 \boxed{?} 4 \\
 + 278 \\
 \hline
 862 \\
 \hline
 \end{array}$$

A 7

B 9

C 6

D 3

E 8

9

Work out this subtraction.

$$\begin{array}{r}
 9000 \\
 - 3648 \\
 \hline
 \\
 \hline
 \end{array}$$

A 6,648

B 5,352

C 6,462

D 5,462

E 12,648

10

A library has 4,385 books. It buys 1,276 more books.

How many books does the library have now?

A 5,551

B 5,651

C 3,109

D 5,661

E 5,561

11

Work out this subtraction.

$$\begin{array}{r}
 63204 \\
 - 28567 \\
 \hline
 \\
 \hline
 \end{array}$$

A 34,637

B 45,363

C 45,747

D 34,737

E 91,771

12

What is the missing number? $5,000 - ? = 1,875$

A 6,875

B 4,235

C 3,225

D 4,125

E 3,125

13

What is the top number?

$$\begin{array}{r}
 3 \boxed{?} 7 \\
 + 28 \boxed{?} \\
 \hline
 652
 \end{array}$$

A 347

B 357

C 367

D 377

E 387

14

Work out this addition.

$$\begin{array}{r}
 27846 \\
 + 35795 \\
 \hline
 \hline
 \end{array}$$

A 52,531

B 63,641

C 63,541

D 62,641

E 7,949

15

What is the difference between 6,020 and 2,784?

A 4,764

B 4,346

C 3,336

D 3,236

E 8,804

16

What is the missing number? $? - 2,738 = 4,569$

A 1,831

B 7,307

C 6,297

D 7,207

E 7,317

17

What is the missing digit?

$$\begin{array}{r}
 8 \boxed{?} 3 \\
 - 467 \\
 \hline
 386
 \end{array}$$

A 4

B 6

C 2

D 8

E 5

18

Work out this addition.

$$\begin{array}{r}
 2\ 3\ 4\ 5 \\
 1\ 6\ 7\ 8 \\
 +\ 3\ 5\ 1\ 9 \\
 \hline
 \end{array}$$

A 7,542

B 7,532

C 6,422

D 7,442

E 8,542

Part 2: Write your answer

19

Work out this addition.

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

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

20

Work out this subtraction.

$$\begin{array}{r}
 7\ 0\ 0\ 2 \\
 -\ 3\ 4\ 6\ 5 \\
 \hline
 \end{array}$$

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

21

Work out this subtraction.

$$\begin{array}{r}
 5\ 4\ 3\ 8\ 6 \\
 -\ 2\ 7\ 5\ 1\ 9 \\
 \hline
 \end{array}$$

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

22

What is the missing number? $? + 3,647 = 9,105$

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

23

What is the missing digit?

$$\begin{array}{r} 6 \boxed{?} 4 1 \\ - 2 8 7 6 \\ \hline 3 5 6 5 \end{array}$$

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

24

Two numbers add up to 10,000. One of them is 3,728.

What is the other number?

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	A 8,686	No carries. Ones: $4 + 2 = 6$. Tens: $3 + 5 = 8$. Hundreds: $2 + 4 = 6$. Thousands: $5 + 3 = 8$. So 8,686.
2	B 4,444	No exchanges. Ones: $5 - 1 = 4$. Tens: $6 - 2 = 4$. Hundreds: $8 - 4 = 4$. Thousands: $7 - 3 = 4$. So 4,444.
3	D 9,333	Ones: $7 + 6 = 13$, carry 1. Tens: $8 + 4 + 1 = 13$, carry 1. Hundreds: $5 + 7 + 1 = 13$, carry 1. Thousands: $6 + 2 + 1 = 9$. So 9,333.
4	C $4,527 + 2,815 = 7,342$	Addition undoes subtraction. The answer plus the number taken away gives the starting number: $4,527 + 2,815 = 7,342$.
5	E 3,136	Ones: $3 - 7$. The tens have 0, so exchange from the hundreds: 4 becomes 3, the tens become 9, the ones become 13. $13 - 7 = 6$, $9 - 6 = 3$, $3 - 2 = 1$, $8 - 5 = 3$. So 3,136.
6	A 68,875	Ones: $7 + 8 = 15$, carry 1. Tens: $1 + 5 + 1 = 7$. Hundreds: $6 + 2 = 8$. Thousands: $5 + 3 = 8$. Ten thousands: $4 + 2 = 6$. So 68,875.
7	C 2,356	Undo the adding: $3,812 - 1,456 = 2,356$. Check: $2,356 + 1,456 = 3,812$.
8	E 8	Ones: $4 + 8 = 12$, carry 1. Tens: $? + 7 + 1$ must end in 6, so $? + 8 = 16$ and $? = 8$. Hundreds: $5 + 2 + 1 = 8$. So $584 + 278 = 862$.
9	B 5,352	Exchange across all three zeros: 9 becomes 8, the hundreds and tens become 9, the ones become 10. $10 - 8 = 2$, $9 - 4 = 5$, $9 - 6 = 3$, $8 - 3 = 5$. So 5,352.
10	D 5,661	Add: $4,385 + 1,276$. Ones: $5 + 6 = 11$, carry 1. Tens: $8 + 7 + 1 = 16$, carry 1. Hundreds: $3 + 2 + 1 = 6$. Thousands: $4 + 1 = 5$. So 5,661.
11	A 34,637	The ones need an exchange and the tens are 0, so exchange from the hundreds: the tens become 9 and the ones 14. $14 - 7 = 7$, $9 - 6 = 3$. The hundreds and thousands each exchange too: $11 - 5 = 6$, $12 - 8 = 4$, $5 - 2 = 3$. So 34,637.
12	E 3,125	The ? is the amount taken away, so it is $5,000 - 1,875 = 3,125$. Check: $5,000 - 3,125 = 1,875$.
13	C 367	Ones: $7 + ?$ must end in 2, so $? = 5$, with 1 carried. Tens: $? + 8 + 1$ must end in 5, so $? = 6$, with 1 carried. Hundreds: $3 + 2 + 1 = 6$. So the top number is 367: $367 + 285 = 652$.
14	B 63,641	Ones: $6 + 5 = 11$, carry 1. Tens: $4 + 9 + 1 = 14$, carry 1. Hundreds: $8 + 7 + 1 = 16$, carry 1. Thousands: $7 + 5 + 1 = 13$, carry 1. Ten thousands: $2 + 3 + 1 = 6$. So 63,641.
15	D 3,236	The difference is the bigger number take away the smaller one: $6,020 - 2,784 = 3,236$. Check: $3,236 + 2,784 = 6,020$.
16	B 7,307	Undo the taking away: $4,569 + 2,738 = 7,307$. Check: $7,307 - 2,738 = 4,569$.
17	E 5	Use the inverse: answer + bottom number = top number. $386 + 467 = 853$, so the missing digit is 5.

Q	Answer	How to get it
18	A 7,542	Ones: $5 + 8 + 9 = 22$. Write 2, carry 2. Tens: $4 + 7 + 1 + 2 = 14$, carry 1. Hundreds: $3 + 6 + 5 + 1 = 15$, carry 1. Thousands: $2 + 1 + 3 + 1 = 7$. So 7,542.
19	8,363	Ones: $8 + 5 = 13$, carry 1. Tens: $6 + 9 + 1 = 16$, carry 1. Hundreds: $7 + 5 + 1 = 13$, carry 1. Thousands: $3 + 4 + 1 = 8$. So 8,363.
20	3,537	Exchange across both zeros: 7 becomes 6, each zero becomes 9, the ones become 12. $12 - 5 = 7$, $9 - 6 = 3$, $9 - 4 = 5$, $6 - 3 = 3$. So 3,537.
21	26,867	Ones: $6 - 9$, exchange: $16 - 9 = 7$. Tens: $7 - 1 = 6$. Hundreds: $3 - 5$, exchange: $13 - 5 = 8$. Thousands: $3 - 7$, exchange: $13 - 7 = 6$. Ten thousands: $4 - 2 = 2$. So 26,867.
22	5,458	Undo the adding: $9,105 - 3,647 = 5,458$. Check: $5,458 + 3,647 = 9,105$.
23	4	Use the inverse: $3,565 + 2,876 = 6,441$. So the missing digit is 4.
24	6,272	$? + 3,728 = 10,000$, so $? = 10,000 - 3,728 = 6,272$. Check: $6,272 + 3,728 = 10,000$.

Score: out of 24