

11+ Maths Practice Paper

Year 6 · Advanced

Lesson 2.5: Word problems and multi-step logic

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

A theatre has 24 rows of 36 seats. 685 tickets are sold.

How many seats are empty?

A 189

B 864

C 1,549

D 179

E 169

Answer: D Seats: $24 \times 36 = 864$. Empty: $864 - 685 = 179$.

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

Now turn over and start Part 1.

Part 1: Multiple choice

1

Pencils cost 35p each and rulers cost 48p each.

How much do 6 pencils and 4 rulers cost, in pence?

- A** 83p **B** 498p **C** 402p **D** 392p **E** 412p

2

Ella is 3 times as old as Zak. In 4 years' time, Ella will be 31.

How old is Zak now?

- A** 9 **B** 27 **C** 10 **D** 11 **E** 31

3

A school buys 14 boxes of 36 pencils. It gives 25 pencils to each of its 18 classes.

How many pencils are left?

- A** 450 **B** 504 **C** 64 **D** 44 **E** 54

4

Two numbers add up to 140. Their difference is 36.

What is the larger number?

- A** 52 **B** 88 **C** 104 **D** 70 **E** 72

5

I think of a number. I add 7, multiply by 3, then subtract 12. The answer is 60.

What was my number?

- A** 31 **B** 24 **C** 13 **D** 17 **E** 19

6

Ruby has 5 times as many stickers as Omar. Ruby has 84 more stickers than Omar.

How many stickers do they have altogether?

- A** 126 **B** 105 **C** 21 **D** 168 **E** 147

7

A swimming pool charges £6 for each adult and £4 for each child. A group of 5 adults and some children pays £70.

How many children are in the group?

- A** 16 **B** 17 **C** 10 **D** 11 **E** 9
-

8

A car travels 48 miles every day for 2 weeks.

How far does it travel altogether?

- A** 96 miles **B** 336 miles **C** 662 miles **D** 682 miles **E** 672 miles
-

9

Ana, Ben and Cal share 156 stickers. Ana gets 12 more than Ben, and Ben gets 12 more than Cal.

How many stickers does Cal get?

- A** 52 **B** 64 **C** 48 **D** 40 **E** 44
-

10

A shop buys 25 boxes of 12 cakes for £180 altogether. It sells every cake for £1.

How much more money does it take than it paid?

- A** £300 **B** £120 **C** £180 **D** £100 **E** £30
-

11

Max is 7 years older than Lily. In 5 years' time, their ages will add up to 47.

How old is Lily now?

- A** 20 **B** 22 **C** 18 **D** 13 **E** 15
-

12

I think of a number. I divide it by 4, then add 9, then multiply by 2. The answer is 40.

What was my number?

- A** 11 **B** 124 **C** 22 **D** 44 **E** 36
-

13

A bus holds 52 people. 6 buses are full, and a seventh bus has 29 people on it.

How many people are on the buses altogether?

- A 341 B 364 C 335 D 312 E 351
-

14

Tia has £85. She buys 3 books at £12 each and a bag. She has £21 left.

How much did the bag cost?

- A £49 B £64 C £28 D £36 E £18
-

15

Jo has 3 times as many marbles as Kim. Kim has twice as many marbles as Lee. Together they have 180 marbles.

How many marbles does Jo have?

- A 60 B 120 C 90 D 40 E 20
-

16

A garden centre has 23 trays of plants with 15 plants on each tray. It sells 8 full trays and 7 single plants.

How many plants are left?

- A 225 B 345 C 232 D 208 E 218
-

17

4 pens and 1 pad cost £17 altogether. A pad costs £2 more than a pen.

How much does a pad cost?

- A £3 B £7 C £4 D £5 E £15
-

18

Amy, Ben and Cara have 90 sweets altogether. Ben has twice as many as Amy. Cara has 3 times as many as Amy.

How many sweets does Cara have?

- A 30 B 45 C 15 D 60 E 27
-

19

A cinema has 18 rows of 24 seats. On Monday every seat is sold except 37. Tickets cost £8.

How much money does the cinema take on Monday?

- A £3,160 B £3,456 C £296 D £3,260 E £3,060

20

I think of a number. I multiply it by itself, then add 10. The answer is 74.

What was my number?

- A 32 B 84 C 8 D 64 E 7

Part 2: Write your answer

21

A school orders 36 boxes of 25 books. It sends 418 of the books to classrooms.

How many books are left?

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

22

Kofi saves £14 every week.

How many weeks will it take him to save £238?

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

23

Two numbers add up to 200. Their difference is 48.

What is the smaller number?

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

24

I think of a number. I subtract 8, divide by 3, then add 15. The answer is 34.

What was my number?

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

25

Ali has 6 times as many cards as Ben. Ali has 125 more cards than Ben.

How many cards does Ben have?

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

26

Adult tickets cost £9 and child tickets cost £5. A family buys 2 adult tickets and some child tickets. They pay £48 altogether.

How many child tickets do they buy?

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

27

Sara, Tom and Uma share 240 stamps. Tom has twice as many as Sara. Uma has 40 more than Tom.

How many stamps does Uma have?

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

Answer sheet

11+ Maths Practice Paper · Year 6 · Lesson 2.5: Word problems and multi-step logic

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 402p	Pencils: $6 \times 35p = 210p$. Rulers: $4 \times 48p = 192p$. Total: $210p + 192p = 402p$.
2	A 9	Ella is $31 - 4 = 27$ now. Zak is $27 \div 3 = 9$.
3	E 54	Pencils: $14 \times 36 = 504$. Given out: $18 \times 25 = 450$. Left: $504 - 450 = 54$.
4	B 88	$140 - 36 = 104$, so the smaller number is $104 \div 2 = 52$. The larger is $52 + 36 = 88$.
5	D 17	Undo in reverse order: $60 + 12 = 72$, then $72 \div 3 = 24$, then $24 - 7 = 17$. Check: $17 + 7 = 24$, $24 \times 3 = 72$, $72 - 12 = 60$.
6	A 126	Omar is 1 box and Ruby is 5 boxes, so the difference is 4 boxes = 84. One box is 21. Altogether there are 6 boxes: $6 \times 21 = 126$.
7	C 10	The adults pay $5 \times £6 = £30$. The children pay $£70 - £30 = £40$. That is $£40 \div £4 = 10$ children.
8	E 672 miles	2 weeks is 14 days. $14 \times 48 = 672$ miles.
9	D 40	Take away the extras: Ben has 12 extra and Ana has 24 extra, so $156 - 36 = 120$. That is 3 equal shares: $120 \div 3 = 40$ for Cal.
10	B £120	Cakes: $25 \times 12 = 300$, so the shop takes £300. It paid £180, so it takes $£300 - £180 = £120$ more.
11	E 15	In 5 years they will both be 5 years older, so now their ages add up to $47 - 10 = 37$. Take away the 7: $37 - 7 = 30$, and $30 \div 2 = 15$.
12	D 44	Undo in reverse order: $40 \div 2 = 20$, then $20 - 9 = 11$, then $11 \times 4 = 44$.
13	A 341	Full buses: $6 \times 52 = 312$. Add the seventh bus: $312 + 29 = 341$.
14	C £28	She spent $£85 - £21 = £64$. The books cost $3 \times £12 = £36$. The bag cost $£64 - £36 = £28$.
15	B 120	Lee is 1 box, Kim is 2 boxes and Jo is 6 boxes: 9 boxes make 180, so one box is 20. Jo has $6 \times 20 = 120$.
16	E 218	Plants: $23 \times 15 = 345$. Sold: $8 \times 15 + 7 = 127$. Left: $345 - 127 = 218$.
17	D £5	Think of the pad as a pen plus £2. Then $5 \text{ pens} + £2 = £17$, so 5 pens cost £15 and a pen costs £3. The pad costs $£3 + £2 = £5$.
18	B 45	Amy is 1 box, Ben is 2 boxes and Cara is 3 boxes: 6 boxes make 90, so one box is 15. Cara has $3 \times 15 = 45$.
19	A £3,160	Seats: $18 \times 24 = 432$. Sold: $432 - 37 = 395$. Money: $395 \times £8 = £3,160$.
20	C 8	Undo + 10 first: $74 - 10 = 64$. A number multiplied by itself makes 64, so it is 8 ($8 \times 8 = 64$).
21	482	Books: $36 \times 25 = 900$. Left: $900 - 418 = 482$.

Q	Answer	How to get it
22	17	How many lots of £14 make £238? $238 \div 14 = 17$ weeks.
23	76	$200 - 48 = 152$, so the smaller number is $152 \div 2 = 76$. (The larger is 124.)
24	65	Undo in reverse order: $34 - 15 = 19$, then $19 \times 3 = 57$, then $57 + 8 = 65$.
25	25	Ben is 1 box and Ali is 6 boxes, so the difference is 5 boxes = 125. One box is $125 \div 5 = 25$.
26	6	Adults: $2 \times £9 = £18$. Children: $£48 - £18 = £30$. Child tickets: $£30 \div £5 = 6$.
27	120	Sara is 1 box, Tom is 2 boxes and Uma is 2 boxes + 40. So $5 \text{ boxes} + 40 = 240$, and $5 \text{ boxes} = 200$. One box is 40, so Tom has 80 and Uma has $80 + 40 = 120$.

Score: out of 27