

Place value and the four operations

Exam questions

Foundation tier

Please write clearly in block capitals.

Name

Class

Teacher

Time allowed: 85 minutes

Materials

For this booklet you need a black pen, a pencil, a ruler, a rubber and a calculator for Section B.

Instructions

- Use black ink or black ballpoint pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions in the spaces provided.
- **Section A** (questions 1 to 12): you must not use a calculator.
- **Section B** (questions 13 to 27): you may use a calculator.
- Do all rough work in this booklet. Cross through any work you do not want marked.

Information

- The marks for each question are shown in brackets.
- The maximum mark for this booklet is 75.

Advice

- Read each question carefully.
- In all calculations, show clearly how you work out your answer.

For teacher's use

Q	Mark	Q	Mark
1		15	
2		16	
3		17	
4		18	
5		19	
6		20	
7		21	
8		22	
9		23	
10		24	
11		25	
12		26	
13		27	
14			
TOTAL			

Section A



You must not use a calculator

Do not
write
outside
the box

- 1 (a) Write thirty thousand and sixty-four in figures.

Answer _____ [1 mark]

- (b) What is the value of the 8 in the number 5.682?

Answer _____ [1 mark]

- 2 The table shows the lowest temperature in five towns one night.

Town	Braemar	Buxton	Penrith	Truro	Whitby
Temperature (°C)	-8	-3	-5	4	2

- (a) Which town was the coldest?

Answer _____ [1 mark]

- (b) Work out the difference between the highest and the lowest temperature.

Answer _____ °C [1 mark]

- (c) By midday, the temperature in Penrith had gone up by 9 degrees.
Work out the temperature in Penrith at midday.

Answer _____ °C [1 mark]

- 3** Write $<$, $>$ or $=$ in each box to make each statement correct.

$0.7 \quad \square \quad 0.65$

$-8 \quad \square \quad -5$

$3 \times 4 \quad \square \quad 2 \times 6$

[2 marks]

- 4** Work out 346×27

Answer _____

[3 marks]

- 5** Mo works out $6003 - 2478$
He gets the answer 4475

(a) Use an addition to show that Mo's answer is wrong.

[1 mark]

(b) Work out $6003 - 2478$

Answer _____

[2 marks]

- 6** A school prints some booklets. Each booklet uses 28 sheets of paper.
A pack of paper has 500 sheets.
The school has 3 packs of paper.

Work out the greatest number of complete booklets the school can print.

Answer _____

[3 marks]

- 7** Here are five number cards.

-5

3

-2

8

-7

- (a)** Two of the cards are multiplied together.
Work out the greatest possible answer.

Answer _____

[1 mark]

- (b)** Three of the cards are added together.
Work out the lowest possible answer.

Answer _____

[1 mark]

- (c)** Which two cards multiply to give -56?

Answer _____

[1 mark]

- 8 Here is a multiplication with two digits missing.

$$4 \square \times 7 = 3 \square 6$$

Write the missing digits in the boxes.

Do not
write
outside
the box

[2 marks]

- 9 Work out $2898 \div 14$

Answer _____

[2 marks]

10 $74 \times 36 = 2664$

(a) Work out 7.4×3.6 Answer _____
[1 mark]**(b)** Work out $2664 \div 0.36$ Answer _____
[1 mark]**(c)** Work out 0.74×360 Answer _____
[1 mark]**(d)** Work out $26.64 \div 0.074$ Answer _____
[1 mark]**11** A café sells tea for £1.85 a cup and hot chocolate for £2.60 a cup.
Nisha buys 4 teas and some hot chocolates.
She pays with a £25 note and gets £2 change.How many hot chocolates did Nisha buy?
You must show your working.Answer _____
[3 marks]

- 12** Two numbers add up to -3
The same two numbers multiply to make -40

Work out the two numbers.

Do not
write
outside
the box

Answer _____

[2 marks]

Section B**You may use a calculator**Do not
write
outside
the box

- 13** Tomasz buys 3 bags of compost at £4.79 each and 2 plant pots at £6.35 each.
He pays with a £50 note.

How much change should he get?

Answer £ _____

[3 marks]

- 14** Callum is paid £11.44 an hour for the first 37.5 hours he works in a week.
He is paid £17.16 an hour for any overtime.
One week Callum works 37.5 hours and then 6 hours of overtime.

Work out Callum's total pay for the week.

Answer £ _____

[3 marks]

- 15** A teacher orders some stationery.

Item	Number	Price each	Cost
Glue sticks	36	£0.47	
Whiteboard pens	24	£1.18	
Exercise books	150	£0.39	
Rulers	45	£0.26	

Complete the table.

Work out the total cost of the order.

Answer £ _____

[3 marks]

- 16** Heights above sea level are positive. Depths below sea level are negative.
A submarine is at -186.4 m.

- (a) The submarine rises 57.85 m.
What is the height of the submarine now?

Answer _____ m

[1 mark]

- (b) The submarine then dives 93.2 m from there.
What is the height of the submarine now?

Answer _____ m

[1 mark]

- (c) A drone is flying 42.6 m above sea level, directly above the submarine.
Work out the distance between the drone and the submarine in (b).

Answer _____ m

[1 mark]

- 17** Ifeoma is paid the same amount for every hour she works.
One week she works 24 hours and is paid £296.40

(a) How much is Ifeoma paid for each hour?

Answer £ _____

[1 mark]

- (b) The next week she is paid £358.15
How many hours did she work that week?

Answer _____ hours

[1 mark]

- 18** A concert hall has 47 rows of seats.
There are 64 seats in each row.
2715 tickets are sold for a concert. Each ticket is for one seat.

How many seats are empty at the concert?

Answer _____

[2 marks]

- 19** Aisha needs a phone for 24 months.
Here are two deals.

Deal A	Deal B
Phone included £24 a month	Buy the phone for £329 then £8.50 a month

Which deal costs less over 24 months, and by how much?
You must show your working.

Answer _____

[3 marks]

- 20** Kemi is saving up for a bike that costs £289.99
She has already saved £45
From now on she saves £12.50 every week.

How many more weeks will it take until she has enough money for the bike?

Answer _____ weeks

[3 marks]

- 21** A tap is dripping.
It drips 28 times every minute.
Each drip is 0.35 ml of water.

How many litres of water drip from the tap in one week?

Answer _____ litres

[3 marks]

- 22** Grace's bank account is overdrawn. The balance is $-\pounds 248.37$
She pays $\pounds 415.80$ into the account.
Then three payments of $\pounds 36.99$ each are taken out of the account.

Work out the new balance of the account.

Answer £ _____

[3 marks]

- 23** 418 students and 37 adults are going on a school trip by coach.
Each coach has 53 seats.
It costs £385.50 to hire each coach.
The students share the total cost of the coaches equally. The adults do not pay.

How much does each student pay?
Give your answer to the nearest penny.

Answer £ _____

[4 marks]

- 24** Haruto thinks of a number.
He multiplies his number by 2.4
Then he subtracts 7.65
His answer is 23.31

Work out the number Haruto thought of.

Answer _____

[2 marks]

- 25 (a) Work out $7.3^2 - 2.8 \times 4.15$

Answer _____

[1 mark]

- (b) Put one pair of brackets into this calculation to make it correct.

$$18.4 - 6.2 \times 1.5 + 2.7 = 21$$

[1 mark]

- 26 Oliwia needs 17 packs of flooring.
Each pack costs £23.85
The shop has this offer.

Buy 4 packs, get the next pack free

How much does Oliwia pay for the 17 packs?

Answer £ _____

[3 marks]

- 27** There were 18 450 runners in a charity race.
Each runner paid an entry fee of £24.50
The costs of the race were £96 800
The money left over is shared equally between 5 hospitals.

How much does each hospital get?

Answer £ _____

[4 marks]

END OF QUESTIONS