

11+ Maths Practice Paper

Year 5 · Intermediate

Lesson 1.5: Factors, multiples and divisibility rules

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

Which of these is a prime number?

A 15

B 13

C 21

D 25

E 27

Answer: B 13 has exactly two factors: 1 and 13.

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

Now turn over and start Part 1.

Part 1: Multiple choice

1

Which of these is a factor of 36?

- A 8 B 5 C 7 D 9 E 10

2

How many factors does 24 have?

- A 8 B 6 C 7 D 4 E 12

3

Which list shows all the factors of 18?

- A 2, 3, 6, 9
B 1, 2, 3, 6, 9
C 1, 2, 3, 6, 9, 18
D 1, 2, 3, 4, 6, 9, 18
E 1, 3, 6, 18

4

Which number is NOT prime?

- A 37 B 23 C 29 D 31 E 21

5

Which number is divisible by 3?

- A 4,252 B 4,251 C 4,253 D 4,255 E 4,256

6

Which number is divisible by 9?

- A 3,820 B 3,826 C 3,824 D 3,827 E 3,825

7

Which is the only even prime number?

- A 4 B 2 C 1 D 0 E 6

8

Which of these is a multiple of 7?

- A 47 B 67 C 57 D 63 E 73
-

9

How many prime numbers are there between 20 and 30?

- A 2 B 1 C 3 D 4 E 0
-

10

Which number has exactly three factors?

- A 8 B 6 C 9 D 10 E 12
-

11

Which of these is NOT a factor of 56?

- A 8 B 7 C 6 D 14 E 28
-

12

Which number is divisible by both 2 and 5?

- A 130 B 125 C 132 D 115 E 128
-

13

Which of these is true?

- A 2 is not a prime number
B 1 is a prime number
C 9 is a prime number
D Every odd number is prime
E 1 is not a prime number
-

14

Which of these is a factor of 96?

- A 5 B 9 C 7 D 12 E 18
-

15

Which number between 50 and 60 is a multiple of 6?

- A 52 B 54 C 56 D 58 E 51

16

Which number is divisible by 6?

A 530

B 524

C 525

D 522

E 526

17

What is the largest prime number less than 50?

A 49

B 47

C 45

D 43

E 41

18

The digits of a 3-digit number add up to 21.

Which of these must be true?

A It is prime

B It is divisible by 9

C It is even

D It is divisible by 5

E It is divisible by 3

Part 2: Write your answer

19

How many factors does 30 have?

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

20

What is the 12th multiple of 7?

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

21

What is the smallest prime number bigger than 40?

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

22

How many prime numbers are there less than 20?

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

23

$6 \times ? = 84$. What is the missing factor?

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

24

What do all the factors of 12 add up to?

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		22	
20		23	
21		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	D 9	$36 \div 9 = 4$ exactly.
2	A 8	1, 2, 3, 4, 6, 8, 12 and 24.
3	C 1, 2, 3, 6, 9, 18	In pairs: 1×18 , 2×9 , 3×6 .
4	E 21	$21 = 3 \times 7$, so it has more than two factors.
5	B 4,251	The digits of 4,251 add up to 12, which is in the 3 times table.
6	E 3,825	The digits of 3,825 add up to 18, which is in the 9 times table.
7	B 2	Every other even number has 2 as a factor as well as 1 and itself.
8	D 63	$7 \times 9 = 63$.
9	A 2	They are 23 and 29.
10	C 9	The factors of 9 are 1, 3 and 9.
11	C 6	$56 \div 6 = 9$ remainder 2.
12	A 130	It must be even and end in 0 or 5, so it ends in 0: 130.
13	E 1 is not a prime number	A prime has exactly two factors. 1 has only one.
14	D 12	$96 \div 12 = 8$ exactly.
15	B 54	$6 \times 9 = 54$.
16	D 522	522 is even, and its digits add up to 9, so it passes the rules for 2 and 3.
17	B 47	$49 = 7 \times 7$ and 48 is even, so 47 is the largest.
18	E It is divisible by 3	21 is in the 3 times table, so the number is divisible by 3. 21 is not in the 9 times table.
19	8	1, 2, 3, 5, 6, 10, 15 and 30.
20	84	$12 \times 7 = 84$.
21	41	41 has no factors except 1 and 41.
22	8	2, 3, 5, 7, 11, 13, 17 and 19.
23	14	$84 \div 6 = 14$.
24	28	$1 + 2 + 3 + 4 + 6 + 12 = 28$.

Score: out of 24