

11+ Maths Practice Paper

Year 5 · Intermediate

Lesson 1.6: HCF and LCM mastery

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

What is the HCF of 12 and 18?

A 36

B 3

C 2

D 12

E 6

Answer: E The common factors are 1, 2, 3 and 6. The biggest is 6.

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

Now turn over and start Part 1.

Part 1: Multiple choice

1

What is the HCF of 24 and 36?

A 12

B 6

C 4

D 72

E 24

2

What is the LCM of 6 and 8?

A 12

B 48

C 2

D 14

E 24

3

Which of these is a common factor of 18 and 30?

A 5

B 9

C 6

D 10

E 15

4

How many common factors do 18 and 24 have?

A 3

B 4

C 5

D 6

E 2

5

What is the LCM of 9 and 12?

A 21

B 108

C 3

D 36

E 24

6

What is the HCF of 28 and 42?

A 7

B 14

C 2

D 84

E 28

7

Which of these is a common multiple of 6 and 10?

A 40

B 16

C 20

D 30

E 50

8

What is the LCM of 10 and 15?

A 30

B 150

C 5

D 25

E 60

9

Two runners start together. One runs a lap every 4 minutes, the other every 6 minutes.

After how many minutes are they at the start together again?

- A** 10 **B** 24 **C** 12 **D** 2 **E** 6
-

10

Ribbons of 18 cm and 24 cm are cut into pieces, all the same length, with none left over.

What is the longest each piece can be?

- A** 2 cm **B** 3 cm **C** 72 cm **D** 12 cm **E** 6 cm
-

11

What is the HCF of 45 and 60?

- A** 20 **B** 5 **C** 3 **D** 180 **E** 15
-

12

What is the LCM of 8 and 12?

- A** 96 **B** 24 **C** 4 **D** 48 **E** 20
-

13

Which pair of numbers has an HCF of 1?

- A** 12 and 15 **B** 6 and 9 **C** 4 and 10 **D** 8 and 9 **E** 14 and 21
-

14

The HCF of 12 and another number is 12. Which could the other number be?

- A** 36 **B** 30 **C** 18 **D** 20 **E** 16
-

15

One bell rings every 15 minutes and another every 20 minutes. They ring together at noon.

When do they next ring together?

- A** 12:05 pm **B** 12:35 pm **C** 1:00 pm **D** 5:00 pm **E** 12:30 pm
-

16

Sausages come in packs of 6 and buns in packs of 8.

What is the smallest number of each you can buy to have the same number of sausages and buns?

A 14

B 48

C 24

D 2

E 12

17

What is the HCF of 36 and 48?

A 12

B 6

C 4

D 144

E 24

18

What is the LCM of 12 and 15?

A 30

B 180

C 3

D 27

E 60

Part 2: Write your answer

19

What is the HCF of 32 and 48?

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

20

What is the LCM of 4 and 10?

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

21

What is the HCF of 36 and 54?

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

22

What is the LCM of 9 and 15?

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

23

Party bags are made from 20 sweets and 30 stickers. Every bag is the same and nothing is left over.

What is the biggest number of bags?

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

24

Two lighthouses flash together. One flashes every 8 seconds and the other every 10 seconds.

After how many seconds do they next flash together?

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 12	The common factors are 1, 2, 3, 4, 6 and 12.
2	E 24	Count in 8s: 8, 16, 24. 24 is in the 6 times table.
3	C 6	6 goes into 18 and into 30.
4	B 4	They are 1, 2, 3 and 6.
5	D 36	Count in 12s: 12, 24, 36. 36 is in the 9 times table.
6	B 14	The common factors are 1, 2, 7 and 14.
7	D 30	30 is in the 6 times table and the 10 times table.
8	A 30	Count in 15s: 15, 30. 30 is in the 10 times table.
9	C 12	"Together again" means the LCM of 4 and 6: 12.
10	E 6 cm	"Longest equal pieces" means the HCF of 18 and 24: 6.
11	E 15	The common factors are 1, 3, 5 and 15.
12	B 24	Count in 12s: 12, 24. 24 is in the 8 times table.
13	D 8 and 9	The only number that goes into 8 and 9 is 1. Each other pair shares a bigger factor.
14	A 36	12 goes into 36, so the HCF of 12 and 36 is 12.
15	C 1:00 pm	The LCM of 15 and 20 is 60 minutes. 60 minutes after noon is 1:00 pm.
16	C 24	That is the LCM of 6 and 8: 24.
17	A 12	The common factors are 1, 2, 3, 4, 6 and 12.
18	E 60	Count in 15s: 15, 30, 45, 60. 60 is in the 12 times table.
19	16	16 goes into 32 (twice) and 48 (3 times), and nothing bigger goes into both.
20	20	Count in 10s: 10, 20. 20 is in the 4 times table.
21	18	18 goes into 36 (twice) and 54 (3 times).
22	45	Count in 15s: 15, 30, 45. 45 is in the 9 times table.
23	10	That is the HCF of 20 and 30: 10.
24	40	That is the LCM of 8 and 10: 40.

Score: out of 24