

11+ Maths Practice Paper

Year 4 · Foundation

Lesson 1.6: HCF and LCM mastery

Read this with your child:

1. This paper has **20 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: **25 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 common factor of 6 and 9?

A 2

B 3

C 6

D 9

E 18

Answer: B 3 goes into 6 and into 9.

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 common factor of 8 and 12?

- A 8 B 3 C 4 D 6 E 12

2

Which of these is a common multiple of 2 and 3?

- A 10 B 4 C 9 D 8 E 6

3

What is the HCF of 6 and 9?

- A 3 B 1 C 6 D 9 E 18

4

What is the LCM of 2 and 5?

- A 7 B 10 C 5 D 2 E 20

5

Which of these is a common multiple of 3 and 4?

- A 16 B 8 C 9 D 12 E 15

6

What is the HCF of 10 and 15?

- A 15 B 3 C 10 D 5 E 30

7

What is the LCM of 3 and 4?

- A 7 B 12 C 24 D 1 E 8

8

Which of these is NOT a common factor of 12 and 18?

- A 6 B 1 C 2 D 3 E 4

9

What is the LCM of 4 and 8?

- A 8 B 4 C 12 D 32 E 16
-

10

What is the HCF of 5 and 20?

- A 4 B 1 C 5 D 20 E 100
-

11

How many common factors do 8 and 12 have?

- A 3 B 2 C 4 D 5 E 6
-

12

Two lights flash together. One flashes every 2 seconds and the other every 3 seconds.

After how many seconds do they next flash together?

- A 12 B 5 C 3 D 1 E 6
-

13

A teacher has 12 pencils and 16 rubbers. She puts them into identical piles, with none left over.

What is the biggest number of piles she can make?

- A 8 B 2 C 4 D 12 E 48
-

14

What is the smallest number that is in both the 4 and the 6 times tables?

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

15

What is the LCM of 3 and 7?

- A 3 B 10 C 7 D 21 E 42

Part 2: Write your answer

16

What is the HCF of 8 and 20?

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

17

What is the LCM of 5 and 6?

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

18

What is the HCF of 14 and 21?

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

19

What is the LCM of 6 and 9?

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

20

What is the biggest number that divides exactly into both 16 and 24?

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 ☐

Part 2: Write your answer, one digit in each box

16		19	
17		20	
18			

Answers

For a parent to mark with. One mark for each question: the paper is out of 20. Talk through any your child got wrong, using the explanation.

Q	Answer	How to get it
1	C 4	4 goes into 8 (twice) and into 12 (3 times).
2	E 6	6 is in the 2 times table and the 3 times table.
3	A 3	The common factors are 1 and 3. The biggest is 3.
4	B 10	Count in 5s: 5, 10. 10 is in the 2 times table.
5	D 12	$12 = 3 \times 4$, so it is in both times tables.
6	D 5	The common factors are 1 and 5. The biggest is 5.
7	B 12	Count in 4s: 4, 8, 12. 12 is in the 3 times table.
8	E 4	4 goes into 12 but not into 18.
9	A 8	4 goes into 8, so 8 is already in both times tables.
10	C 5	5 goes into 20, so the HCF is 5.
11	A 3	They are 1, 2 and 4.
12	E 6	"Together again" means the LCM of 2 and 3, which is 6.
13	C 4	"Biggest number of identical piles" means the HCF of 12 and 16, which is 4.
14	B 12	That is the LCM of 4 and 6: 12.
15	D 21	The only common factor is 1, so the LCM is $3 \times 7 = 21$.
16	4	The common factors are 1, 2 and 4.
17	30	Count in 6s: 6, 12, 18, 24, 30. 30 is in the 5 times table.
18	7	The common factors are 1 and 7.
19	18	Count in 9s: 9, 18. 18 is in the 6 times table.
20	8	That is the HCF of 16 and 24: 8.

Score: out of 20