



**Bishops
Online
Tutoring**



Education Consultancy

Edexcel GCSE Mathematics

HCF, LCM & PRODUCT OF PRIME FACTORS

Materials Required:

- Pen
- HB Pencil
- Ruler (in centimetres and millimetres)
- Protractor
- Compass

Instructions:

- Use a black ink pen to answer all questions
- Fill your name in the section below
- Answer the questions in the spaces provided
- Show your working out for all answers

Information:

- The marks allocated for each question are displayed within brackets – utilise this information to gauge the appropriate amount of time to dedicate to each question
- Questions marked with an asterisk (*) will assess your written communication; be careful of spelling, punctuation and grammar with these questions

Advice:

- Carefully read the question before attempting to answer it
- Be vary of time and try to answer every question
- If you have enough time in the end, go back and check your answers. A good way to check your answers is to retry the question with the hope of getting the same answer as before without looking at your working out from before

NO CALCULATOR ALLOWED

NAME:	
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1. Write 140 as the product of its prime factors.

.....

(2 marks)

2. Write 720 as a product of its prime factors.

.....

(2 marks)

3. Express the following numbers as products of their prime factors.

(i) 60,

.....

(ii) 96.

.....

(4)

(b) Find the Highest Common Factor of 60 and 96.

.....

(1)

(c) Work out the Lowest Common Multiple of 60 and 96.

.....

(2)

(7 marks)

4. Express 120 as the product of powers of its prime factors.

..... (3)

- (b) Find the Lowest Common Multiple of 120 and 150.

..... (2)

(5 marks)

-
5. (a) Express 108 as the product of powers of its prime factors.

..... (3)

- (b) Find the Highest Common Factor (HCF) of 108 and 24

..... (1)

(4 marks)

6. Work out the Highest Common Factor (HCF) of 24 and 64

.....

(2)

- (b) Work out the Lowest Common Multiple (LCM) of 24 and 64

.....

(2)

(4 marks)

-
7. (a) Find the Highest Common Factor of 75 and 90.

.....

(2)

- (b) Find the Lowest Common Multiple of 75 and 90.

.....

(2)

(4 marks)

8. Express 84 as a product of its prime factors.

.....

(3)

- (b) Find the Highest Common Factor (HCF) of 84 and 35

.....

(2)

(5 marks)

-
9. (a) Express 56 as the product of its prime factors.

.....

(2)

- (b) Find the Lowest Common Multiple of 56 and 98

.....

(2)

(4 marks)

10. Find the Highest Common Factor (HCF) of 84 and 180

.....

(3 marks)

11. Find the Highest Common Factor (HCF) of 32 and 80

.....

(3 marks)

12. (a) Find the Lowest Common Multiple (LCM) of 24 and 36

.....

(2)

James thinks of two numbers.

He says “The Highest Common Factor (HCF) of my two numbers is 3
The Lowest Common Multiple (LCM) of my two numbers is 45”

- (b) Write down two numbers that James could be thinking of.

..... and

(3)

(5 marks)