GCSE MATHEMATICS
AQA | Edexcel | OCR I WJEC

## Prime Factors, HCF, and LCM

Please write clearly in block capitals

Forename:
Surname:

## Materials

For this paper you must have:

- mathematical instruments

You can use a calculator.

## Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.


## Information

- The marks for questions are shown in brackets.
- You may ask for graph paper, tracing paper and more answer paper. These must be tagged securely to this answer book.


## Advice

- In all calculations, show clearly how you work out your answer.

1 Look at the numbers in the rectangle below.

| 5 | 12 | 27 | 7 |
| :---: | :---: | :---: | :---: |
| 29 | 17 | 2 | 25 |
| 24 | 18 | 8 | 1 |
| 16 | 3 | 49 | 125 |

1(a) Write down the prime numbers.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

1(b) Define a prime number.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

Turn over for next question

2 The following prime factor trees are part complete.

2(a) Complete the prime factor tree for 24


2(b) Complete the prime factor tree for 50


2(c) Complete the prime factor tree for 140


Turn over for next question

3(a) Write 72 as a product of its prime factors.
Give your answer in index form.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

3(b) Write 90 as a product of prime factors.
Give your answer in index form.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

3(c) Write 160 as a product of its prime factors
Give your answer in index form.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Answer

Turn over for next question
4(a) Write 1620 as a product of its prime factors.
4(d) Find the HCF of 1620 and 420
$5 \quad$ Find the HCF and LCM of 126 and 234
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
HCF = $\qquad$
LCM = $\qquad$

Turn over for next question
$6 \quad x$ and $y$ are two positive numbers greater than 21
The HCF of $x$ and $y$ is 21 .
The LCM of $x$ and $y$ is 210
Find $x$ and $y$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$x=$ $\qquad$ $y=$ $\qquad$


## GCSE Maths Practice Exam Papers

© GCSE Maths predicted papers and mark schemes
() Paper 1, 2, 3 and mark scheme in every set
© All exam boards - AQA, OCR, Edexcel, WJEC

Get them at mme.la/papers or scan the barcode $\longrightarrow$
$7 \quad a, b, c$ and $d$ are prime numbers.
Find the HCF and LCM of $10 a^{2} b^{3} c$ and $5 a b^{2} c d$

HCF = $\qquad$
LCM = $\qquad$

End of Questions

