



## Foundation / Higher Tier

# HCF and LCM

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a  $\pi$  button, take the value of  $\pi$  to be 3.142 unless the question instructs otherwise.

### Information

- The marks for **each** question are shown in brackets- *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
  - Keep an eye on the time.
  - Try to answer every question.
  - Check your answers if you have time at the end.
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1. Write 84 as a product of prime factors.

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**(Total for Question 1 is 2 marks)**

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2. Write 180 as a product of prime factors.

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**(Total for Question 2 is 2 marks)**

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3. Write 252 as a product of prime factors.

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**(Total for Question 3 is 2 marks)**

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4. Write 360 as a product of prime factors.

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**(Total for Question 4 is 2 marks)**

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5. Find the HCF and LCM of 120 and 180.

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**(Total for Question 5 is 3 marks)**

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6. Find the HCF and LCM of 84 and 210.

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**(Total for Question 6 is 3 marks)**

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7. Find the HCF and LCM of 96 and 144.

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**(Total for Question 7 is 3 marks)**

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8. Find the HCF and LCM of 150 and 200.

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**(Total for Question 8 is 3 marks)**

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9.  $A = 2^4 \times 3^2 \times 5$

$$B = 2^2 \times 3^3 \times 7$$

Find the HCF and LCM of A and B

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(Total for Question 9 is 3 marks)

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10.  $A = 2^5 \times 3 \times 5^2$

$$B = 2^3 \times 3^4 \times 5 \times 11$$

Find the HCF and LCM of A and B

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(Total for Question 10 is 3 marks)

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