Prime Factors, HCF & LCM

Question Paper

Course	Edexcel IGCSE Maths
Section	1. Numbers & the Number System
Topic	Prime Factors, HCF & LCM
Difficulty	Easy

Time allowed: 50

Score: /40

Percentage: /100

Question 1

Write 525 as a product of its prime factors.

[3 marks]

Question 2

Express 56 as the product of its prime factors.

[2 marks]

Question 3

Write 36 as a product of its prime factors.

[2 marks]

Question 4

Trams leave Piccadilly

to Eccles every 9 minutes
to Didsbury every 12 minutes

A tram to Eccles and a tram to Didsbury both leave Piccadilly at 9 am.
At what time will a tram to Eccles and a tram to Didsbury next leave Piccadilly at the same time?

[3 marks]

Question 5

Write 600 as a product of powers of its prime factors.
Show your working clearly.

[3 marks]

Question 6

$A = 2^n \times 3 \times 5^m$

Write $8A$ as a product of powers of its prime factors.

[2 marks]

Question 7a

Write 720 as a product of its prime factors.
Show your working clearly.

[3 marks]

Question 7b

Find the smallest whole number that 720 can be multiplied by to give a square number.

[1]

[1 mark]

Question 8

Write 3.6×10^3 as a product of powers of its prime factors.

Show your working clearly.

[3 marks]

Question 9

Write 800 as a product of its prime factors.
Show your working clearly.

[2 marks]

Question 10

Write 880 as a product of powers of its prime factors.
Show your working clearly.

[3 marks]

Question 11

Find the Highest Common Factor (HCF) of 140 and 245

[2 marks]

Question 12

Circle the lowest common multiple (LCM) of 5, 15 and 25

5 45 75 150

[1 mark]

Question 13

Work out the lowest common multiple (LCM) of 20, 30 and 40

Circle your answer.

10 120 240 24 000

[1 mark]

Question 14

Write 504 as the product of its prime factors.

[3 marks]

Question 15

You are given that $177147 = 3^{11}$

Write 177 147 000 000 as a product of its prime factors.

[3 marks]

Question 16

Carla runs every 3 days.
She swims every Thursday.
On Thursday 9 November, Carla both runs and swims.

What will be the next date on which she both runs and swims?

[3 marks]