

1 Write 36 as a product of its prime factors.

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

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2 Express 56 as the product of its prime factors.

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

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3 (a) Find the lowest common multiple (LCM) of 40 and 56

.....  
(2)

$$A = 2^3 \times 3 \times 5 \qquad B = 2^2 \times 3 \times 5^2$$

(b) Write down the highest common factor (HCF) of  $A$  and  $B$ .

.....  
(1)

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

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4 Here are three lamps.

lamp A



lamp B



lamp C



Lamp **A** flashes every 20 seconds.

Lamp **B** flashes every 45 seconds.

Lamp **C** flashes every 120 seconds.

The three lamps start flashing at the same time.

How many times in one hour will the three lamps flash at the same time?

.....  
**(Total for Question 4 is 3 marks)**

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5 Find the highest common factor (HCF) of 72 and 90

.....  
**(Total for Question 5 is 2 marks)**

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6 (a) Write 84 as a product of its prime factors.

.....  
(2)

(b) Find the lowest common multiple (LCM) of 60 and 84

.....  
(2)

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**(Total for Question 6 is 4 marks)**

7 Here is a list of five numbers.

$$98^{53} \quad 98^{64} \quad 98^{73} \quad 98^{88} \quad 98^{91}$$

Find the lowest common multiple of these five numbers.

.....  
**(Total for Question 7 is 1 mark)**

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8 (a) Find the Highest Common Factor (HCF) of 60 and 84

.....  
(2)

(b) Find the Lowest Common Multiple (LCM) of 24 and 40

.....  
(2)

**(Total for Question 8 is 4 marks)**



**9** Find the Lowest Common Multiple (LCM) of 108 and 120

.....  
**(Total for Question 9 is 3 marks)**

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**10** Write 500 as a product of powers of its prime factors.

.....  
**(Total for Question 10 is 3 marks)**

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- 11** Two numbers  $m$  and  $n$  are such that  
 $m$  is a multiple of 5  
 $n$  is an even number  
the highest common factor (HCF) of  $m$  and  $n$  is 7

Write down a possible value for  $m$  and a possible value for  $n$ .

$m =$  .....

$n =$  .....

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**(Total for Question 11 is 2 marks)**

**12** Write 124 as a product of its prime factors.

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**(Total for Question 12 is 2 marks)**

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