

Name .....

Jun 02 Q15

15 (a) Express 36 as a product of its prime factors.

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Answer ..... (3 marks)

(b) Find the Highest Common Factor (HCF) of 36 and 60.

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Answer ..... (2 marks)

16 Express 120 as the product of its prime factors.  
Give your answer in index form.

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Answer ..... (3 marks)

17 (a) Write 36 as the product of its prime factors.

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Answer ..... (2 marks)

(b) What is the least common multiple (LCM) of 36 and 45?

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Answer ..... (2 marks)

7 (a) Express 108 as a product of its prime factors.

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Answer ..... (2 marks)

(b) Find the Highest Common Factor (HCF) of 108 and 72.

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Answer ..... (2 marks)

## Jun 02 Q15

15	(a)	$36 = 2 \times 18$ or $3 \times 12$  $= 2^2 \times 3^2$	M1 M1 A1	2 or 3 as a factor Only 2 or 3 as factors Accept $2 \times 2 \times 3 \times 3$  Alternative: $2^2$ and $3^2$ gets M2
	(b)	12	B2	B1 for $60 = 2^2 \times 3 \times 5$ B1 for ans $2^2 \times 3$

## Nov 04 Q16

16	$120 = 2 (\times) 60$	M1	or $3 (\times) 40$ or $5 (\times) 24$
	$= 2 \times 2 \times 2 \times 3 \times 5$	A1	Condone missing $\times$ signs here
	$2^3 \times 3 \times 5$	A1	Do not accept factor of 1

## Jun 05 Q17

17(a)	$2 (\times) 18$ or $3 (\times) 12$ or $2^2 (\times) 9$ or $4 (\times) 3^2$ or $2 (\times) 3 (\times) 6$	M1	For correct use of prime and other factor(s) May be seen on ‘exploding tree’ or ‘division’ list List of factors is M0 unless paired and includes 2, 18 or 3, 12
	$2 \times 2 \times 3 \times 3$ or 2.2.3.3	A1	$2^2 \times 3^2$ “1 $\times$ ” included is A0
(b)	$45 = 3 (\times) 3 (\times) 5$	M1	36, 72, 108, 144, 180, ... and 45, 90, 135, 180, ...
	180	A1	Accept $2^2 \times 3^2 \times 5$ SC1 Answer of any other common multiple eg 360, 540, 720 etc

## Mar 05 Q7

7(a)	$2 \times 54$ or $3 \times 36$	M1	
	$2 \times 2 \times 3 \times 3 \times 3$	A1	Accept $2^2 \times 3^3$
(b)	$2^3 \times 3^2$	B1	
	HCF = 36 or $2^2 \times 3^2$	B1	SC1 for 6, 12 or 18