

Paper: 1MA1/1F				
Question	Working	Answer	Mark	Notes
22 <b>Q1</b>		$2 \times 2 \times 2 \times 7$	M1  A1	for complete method to find prime factors; could be shown on a complete factor tree with no more than 1 arithmetic error accept $2^3 \times 7$

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Question	Answer	Mark	Mark scheme	Additional guidance
24  <b>Q2</b>	18	M1   A1	for listing factors of 72 and 90, at least 4 correct for each (with no more than 1 incorrect in each list), could be in factor pairs  <b>OR</b> for the prime factors of 72 (2, 2, 2, 3, 3) <b>or</b> 90 (2, 3, 3, 5)  for 18 or $2 \times 3^2$ oe  SC B1 for answer of 6 or 9 if M0 scored	Factors of 72: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72 Factors of 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90   2, $3^2$ is not enough, it must be a product

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
21 (a)  <b>Q3</b>	$2 \times 2 \times 3 \times 7$	M1  A1	for a complete method to find prime factors, could be shown on a factor tree, with no more than one arithmetic error <b>or</b> for 2, 2, 3, 7  for $2 \times 2 \times 3 \times 7$ oe	Condone the use of 1  Accept $2^2 \times 3 \times 7$
(b)	420	M1  A1	for at least 3 multiples of both 60 and 84 (can include 60 and 84) <b>or</b> finds the prime factors of both 84 (may be seen in (a)) and 60, may be seen in factor trees  420 or $2 \times 2 \times 3 \times 5 \times 7$ oe	60, 120, 180, 240, 300, 360, 420 84, 168, 252, 336, 420 $60 = 2 \times 2 \times 3 \times 5$ or $2^2 \times 3 \times 5$ If factor tree in (a) is incorrect ft this factor tree in part (b) for M1 only

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
22 (a)  <b>Q4</b>  (b)	12	M1	for a correct factor tree for either 60 <b>or</b> 84 with no more than one arithmetic error <b>or</b> for listing factors of 60 <b>or</b> 84, at least 4 correct for either (with no more than 1 incorrect in either list), could be in factor pairs <b>or</b> for the prime factors of 60 (2, 2, 3, 5) <b>or</b> 84 (2, 2, 3, 7)	Condone the use of 1 in any factor tree 60: 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60 84: 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84  2,2,3 is not enough, it must be a product
		A1	for 12 or $2 \times 2 \times 3$ oe SC B1 for answer of 4 or 6, if M0 scored	
	120	M1	for a correct factor tree for either 24 <b>or</b> 40 with no more than one arithmetic error <b>or</b> for at least 3 multiples of both 24 and 40 (can include 24 and 40) <b>or</b> for the prime factors of either 24 (2, 2, 2, 3) <b>or</b> 40 (2, 2, 2, 5) <b>or</b> for a common multiple from their lists ( $\neq 120$ )	Condone the use of 1 in any factor tree 24: 24, 48, 72, 96, 120, ... 40: 40, 80, 120, ... For the list not containing 120, accept the first 3 correct multiples or one error in the first 4 multiples
	A1	for 120 or $2 \times 2 \times 2 \times 3 \times 5$ oe		

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Question	Answer	Mark	Mark scheme	Additional guidance
19  <b>Q5</b>	$2^2 \times 5^3$	M1	for a complete method to find prime factors; could be shown on a complete factor tree with no more than one error or by division by prime factors with no more than one error	Condone the inclusion of 1 for the method marks  Could be shown on a fully correct factor tree
		M1	for complete factorisation, eg 2, 2, 5, 5, 5	
		A1	for $2^2 \times 5^3$	

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
24	$2 \times 2 \times 31$	M1	for a complete method to find prime factors; could be shown on a complete factor tree with no more than one error <b>or</b> by division by prime factors with no more than one error	Condone the inclusion of 1 for this mark
<b>Q6</b>			<b>or</b> for 2, 2, 31, (1)	Accept $2^2 \times 31$
		A1	for $2 \times 2 \times 31$ oe	

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
21	168	M1	for a list of at least 3 multiples of each number or for factors 3,2,2,2 oe and 7,2,2,2 oe (could be shown in a factor tree or Venn diagram or table)	Condone the use of 1 as a factor
<b>Q7</b>		A1	cao	

Paper 1MA1: 1F				
Question	Working	Answer	Mark	Notes
23		$2 \times 2 \times 3 \times 3$	M1	for complete method to find prime factors; could be shown on a complete factor tree with no more than 1 arithmetic error or 2,2,3,3,(1)
<b>Q8</b>			A1	for $2 \times 2 \times 3 \times 3$ oe

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
15	6	P1	for listing the multiples of 3 <b>and</b> 5 to at least the number 15 <b>or</b> $3 \times 5 (= 15)$	3, 6, 9, 12, 15 and 5, 10, 15
<b>Q9</b>		P1	for considering multiples of 15, eg 4 multiples of 15 identified <b>or</b> $100 \div 15 (=6.6..)$ <b>or</b> an answer of 7	If in a list of multiples of 3 and 5, multiples of 15 must be clearly identified Sight of $6.6(\dots)$ or $6\frac{2}{3}$ oe or an answer of 7 gets 2 marks.
		A1	cao	

Paper: 1MA1/2F					
Question	Answer	Mark	Mark scheme	Additional guidance	
21	(a)	280	M1	for listing at least 3 multiples of both 40 and 56 <b>OR</b> finds the prime factors of both 40 and 56	40, 80, 120, ... 56, 112, 168, ... <b>OR</b> 2,2,2,5 and 2,2,2,7
<b>Q10</b>			A1	cao	
	(b)	60	B1	60 <b>or</b> $2^2 \times 3 \times 5$ oe	$2^2, 3, 5$ not enough ie must be a product

