

Q1. (2017)

26	Any correct product of 36 using a prime factor	M1	2 and 18 2 and 2 and 9 3 and 12 3 and 3 and 4 2 and 3 and 6 May be on a factor tree or repeated division
	2 and 2 and 3 and 3	A1	oe May be on a factor tree or repeated division
	$2^2 \times 3^2$ or $3^2 \times 2^2$	A1	
	Additional Guidance		
	Allow any number of 1s included as factors for up to M1A1 only		
	$1 \times 2^2 \times 3^2$		M1A1A0
	$2^2, 3^2$		M1A1A1
	$2 + 2 + 3 + 3$		M1A1A0
	$2^2 + 3^2$		M1A1A0
	$2^2 3^2$ or $2^2, 3^2$		M1A1A0
9(a)	$2 \times 2 \times 3 \times 3$ and $2^2 \times 3^2$ on answer line but $2 \times 2 \times 3 \times 3 = 2^2 \times 3^2$ on answer line		M1A1A0 M1A1A1
	$2^2 \times 3^2 = 6^2$		M1A1A0
	6×6 with no prime factorisation		M0A0A0

Q2. (2019)

9(a)	1, 2, 3, 6, 9, 18	B2	B1 the 6 correct values, some or all repeated, with no incorrect values or 5 or 6 correct values with up to 2 incorrect values or 4 correct values with 0 or 1 incorrect values or 3 correct values with 0 incorrect values
	Additional Guidance		
	Use of products or 'coordinates' is B1 max for at least 2 correct products with 0 or 1 incorrect products eg $1 \times 18, 2 \times 9, 3 \times 6$ eg $1 \times 18, 2 \times 9, 3 \times 6, 4 \times 4$		B1 B1
	Lists with repeated values cannot score B2, but ignore repeated values in any format for B1 eg 1, 2, 3, 3 eg $1 \times 18, 2 \times 9, 3 \times 6, 18 \times 1, 9 \times 2, 6 \times 3$		B1 B1
	If a prime factor 'tree' or similar is used, factors must be identified		

Q3. (2019)

9(b)	60	B2	B1 any common multiple of 12 and 15 eg 120, 180 B1 at least the first two multiples correct for each of 12 and 15 (ignore errors after first two) B1 $(12 \div 2)(\times)3$ and $(15 \div 5)(\times)3$ and $2(\times)2(\times)5(\times)3 ((\times)3)$ (or the equivalent work seen in a correct Venn diagram)
	Additional Guidance		
	Answer 60 with error(s) seen may be B0 or B1 but cannot be B2 These error(s) may occur after the 60 – but cannot be ignored		
	If they have listed both multiples and factors, they must choose multiples to score		
	For B2, 60 must be chosen and not just at the end of a list of multiples		

Q4. (2021)

Question	Answer	Mark	Comments
30	200 written as a product of factors where at least one factor is prime	M1	eg 2 and 100 or 2×10^2 or $200 \div 5 = 40$ may be on a factor tree or repeated division allow one strand to be incorrect if a previous value completes the product eg 10×20 followed by $5 \times 2 \times 5 \times 6$ implies $5 \times 2 \times 20$ for M1
	2 and 2 and 2 and 5 and 5	A1	may be on a factor tree or repeated division
	$2^3 \times 5^2$ or $5^2 \times 2^3$	A1	
	Additional Guidance		
	Allow any number of 1s included as factors up to M1A1 only		
	M1 may be awarded for correct work with no or incorrect answer, even if this is seen among multiple attempts		
	$1 \times 2^3 \times 5^2$		M1A1A0
	$2^3 \cdot 5^2$ or $2^3 \cdot 5^2$ or $2^3 5^2$ or $2^3, 5^2$		M1A1A1
	$2 + 2 + 2 + 5 + 5$		M1A1A0
	$2^3 + 5^2$		M1A1A0
	$2 \times 2 \times 2 \times 5 \times 5$ and $2^3 \times 5^2$ on answer line but $2 \times 2 \times 2 \times 5 \times 5 = 2^3 \times 5^2$ on answer line		M1A1A0 M1M1A1
	$2^3 \times 5^2 = 10^5$		M1A1A0
	$2^3 \times 5^2 = 200$		M1A1A1
	8×25 with no prime factorisation		M0A0A0

Q5. (2023)

- 1 Here is a list of numbers.
- 14 9 20 29 3 45 33

(A)

Q	Answer	Mark	Comments
1(a)	20	B1	

(B)

Q	Answer	Mark	Comments
1(b)	9	B1	

(C)

Q	Answer	Mark	Comments
1(c)	14 and 29	B1	either order

Q6. (2023)

Q	Answer	Mark	Comments
18	All conditions met: <ul style="list-style-type: none"> first number is prime second number is prime correctly evaluated even answer answer in range 	B3	if their product is incorrectly evaluated or missing, then 'even answer' and 'answer in range' refer to the correct product for their multiplication B2 4 conditions met B1 3 conditions met
	Additional Guidance		
	$2 \times 29 = 58$ (or $29 \times 2 = 58$) is the only fully correct solution		B3
	Allow 50 to 60 inclusive for 'answer in range'		
	Award the best mark from boxes or in working for up to B2		
	The two prime numbers do not have to be different		