

## Substitution Past Paper Questions (MS)



Q1.

Paper 1MA1:3F			
Question	Working	Answer	Notes
		38 15	B1 cao P1 $(47-2) \div 3$ A1 cao

Q2.

Question	Working	Answer	Mark	Notes
		3	2	M1 for substitution eg $2^3 - 5$ or $8 - 5$ A1 cao

Q3.

Question	Working	Answer	Mark	Notes
(i)		Explanation	C1	e.g. has multiplied before squaring
(ii)		Explanation	C1	e.g. evaluated $(-4)^2$ incorrectly, or not correctly inserted brackets.

Q4.

PAPER: 1MA0 1F				
Question	Working	Answer	Mark	Notes
		26	2	M1 for correct substitution into expression $4 \times 5 + 2 \times 3$ A1 cao

Q5.

Question	Answer	Mark	Mark scheme	Additional guidance
	35	M1	for $4 \times 8 (=32)$	Award this mark if used ambiguously eg $4 \times 8 + 3 = 4 \times 11$ as long as $4 \times 8$ is stated
		A1	cao	



Q6.

Question	Working	Answer	Mark	Notes
	$2 \times 4 \times 4 + 7 = 32 + 7 = 39$	39	2	M1 for $2 \times 4 \times 4$ or $2 \times 16$ A1 cao

Q7.

PAPER: IMA0_2H				
Question	Working	Answer	Mark	Notes
		2.064(285714...)	2	M1 for substitution of 0.7 into expression or 2.89 or 2.06 seen A1 for 2.064(285714...) or $\frac{289}{140}$

Q8.

Question	Working	Answer	Mark	Notes
(a)		38 or 39	M1 A1	for substitution, e.g. $5 \times 1.25 + 32 (= 38.25)$ for 38 or 39
(b)		8	M1 A1	for use of inverse operations, e.g. $(42 - 32) \div 1.25$ or presentation as an equation e.g. $1.25 \times x + 32 = 42$ cao

Q9.

Question	Working	Answer	Mark	Notes
		355	M1 A1	for substitution, e.g. $\pi^2(10^2 - 8^2)$ for 355 (accept 355.3...)

Q10.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	330	M1 A1	for $4 \times 70 + 50$ oe cao	May be seen as sum of four 70s and a 50 $n \times (70 + 50)$ or ambiguous working gets 0 marks
(b)	9	M1 A1	for use of inverse operations eg $(680 - 50) \div 70$ OR rearranges an equation to solve eg $70x + 50 = 680$ rearranged to isolate x term. OR ft (a) eg $((680 - "330") \div 70) + 4$ cao or ft their (a)	Need not have brackets; can be written in an incorrect order if the intention is clear A correct but embedded answer gets 1 mark