

1112/02

September/October  
2005

Checkpoint Maths

Maximum Mark: 50

### Mark Scheme

**Important Notice**

Mark schemes have been issued on the basis of one copy per Assistant Examiner and two copies per Team Leader.

Question number 1			Further Information	
Part	CF	Mark	Answer	
(a)	Sm1	1	metres	
(b)	Sm1	1	litres	
(c)	Sm1	1	square metres	
(d)	Sm1	1	kilometres	
(e)	Sm1	1	kilograms	
(f)	Sm1	1	cubic centimetres	
(g)	Sm1	1	millilitres	
Total		7		

Question number 2			M_003_24	
Part	CF	Mark	Answer	Further Information
(a)	Sm4	1	59	
(b)	Sm3	1	$\frac{8.50 \times 2}{5}$	Award both marks for correct answer even if working is not shown
		1	3.40	
(c)	Sm3	1	7.25	Mark is for correct calculation $1.45 \times 5$ Award both marks for correct answer even if working is not shown
		1	1.25 [FT]	
Total		5		

Question number		3	09_1112_02A	
Part	CF	Mark	Answer	Further Information
(a)	Sg4	2	New triangle correctly located and labelled	Award 1 mark for any two points correct orientation
(b)	Sg1	1	Kite	Accept any clear indication
(c)	Sm5	1	9 - 3 [OE]	Award both marks for correct answer even if working is not shown.
		1	6	
Total		5		

Question number		4	M_004_10		
Part	CF	Mark	Answer	Further Information	
(a)	(i)	Nd3	1	$\frac{1}{8}$ [OE]	
	(ii)	Nd3	1	$\frac{3}{8}$ [OE]	
	(iii)	Nd3	1	$\frac{4}{8}$ [OE]	
	(iv)	Nd3	1	$\frac{2}{8}$ [OE]	
(b)		Nd3	1	$\frac{7}{8}$ [OE]	
Total		5			

09\_1112\_14

Question number 5			Further information
Part	CF	Mark	Answer
(a)	Sm2	1	12:55
(b)	Sm2	1	48
(c)	Sm2	1	9:48pm
Total		3	

Question Number 6		M99019	Further Info
Part	Mark	Answer	
(a)	1	64	
(b)	1	64	Award mark for $b = a$
(c)	1	52	Award mark for $c = 180 - 2a$
(d)	1	36	
Total		4	

Question number		7			M_002_12
Part	CF	Mark	Answer	Further Information	
a)	An5	1	$r^9$		
b)	An5	1	$g^3$		
c)	An5	1	$h^{18}$		
d)	An5	2	$4c^3$	1 mark is for correct co-efficient 1 mark is for correct power	
Total		5			

Question number		8			M_002_19
Part	CF	Mark	Answer	Further Information	
a) (i)	Ag5	1	8		
(ii)	Ag5	1	7		
b)	Ag5	1	$n = 2c - 2$		
c) (i)	Ag5	1	13		
(ii)	Ag5	1	15		
Total		5			

M\_002\_09

Question number		9		
Part	CF	Mark	Answer	Further Information
(a) (i)	An4	1	$12x + 15$	
(ii)	An4	2	$-6y + 4$ $16 - 6y$	Mark is for correct expansion of brackets  Award both marks for correct answer even if working is not shown
(b) (i)	An4	1	$3(x^2 - 5)$	
(ii)	An4	2	$2ab(2b + 3)$	award 1 mark for any correct partial factorisation
Total		6		

Question Number

10

M00068

Part	Mark	Answer	Further Info
(a)	1	$AC^2 = AB^2 - BC^2$	Mark is for correctly stating Pythagoras' rule
	1	$50^2 - 35^2$ [OE]	Mark is for correct application of Pythagoras' rule
	1	35.7(07142)	Accept any correct rounding Award all 3 marks for correct answer even if working is not shown
(b)	1	$\sin CAB = \frac{opp}{adj}$ [OE]	Mark is for correctly stating trig ratio
	1	$= \frac{35}{50}$ [OE]	Mark is for correct application of trig ratio
	1	44.4(27004)	Accept any correct rounding Award all 3 marks for correct answer even if working is not shown
Total	6		