
MATHEMATICS

1112/02

Paper 2

For Examination from 2012

SPECIMEN MARK SCHEME

1 hour

MAXIMUM MARK: 50

This document consists of **5** printed pages and **1** blank page.

Question	1		
Part	Mark	Answer	Further Information
(a)	1	30	
(b)	2	32	1 mark for their total $\div 9$ seen
Total	3		

Question	2		
Part	Mark	Answer	Further Information
(a) (i)	1	9 (litres)	
(ii)	1	0.5 (litres)	
(b)	2	3 : 1 : 2	1 mark for 1500 : 500 : 1000 or better seen: Do not accept: 1.5 : 0.5 : 1
(c)	2	720	1 mark for $450 \div 5$ or 90 seen
Total	6		

Question	3		
Part	Mark	Answer	Further Information
(a) (i)	1	80	
(ii)	2	5	1 mark for $100 = 35 + 15h$ or 75 seen
(b)	2	$\frac{k+2}{3}$ [or equivalent]	1 mark for $k + 2 = 3m$ seen or $\frac{k-2}{3}$ or $k + \frac{2}{3}$ as answer
Total	5		

Question	4		
Part	Mark	Answer	Further Information
(a) (i)	1	15 18	
(ii)	1	3.18 pm [or follow through answer from (a) (i)]	Award mark for their time from (i) written in 12-hour clock. Must include pm
(b)	1	19 (minutes)	
(c)	2	40 (km/h)	1 mark for $10 \div 0.25$ [or equivalent]
Total	5		

Question	5		
Part	Mark	Answer	Further Information
(a)	1	(3, 2) marked	
(b)	1	(-3, 3)	
(c)	1	C drawn correctly	
(d)	2	90° clockwise centre (0, 0)	Or 270° anticlockwise. Answer must include both angle and direction.
Total	5		

Question	6		
Part	Mark	Answer	Further Information
(a)	1	14, 17	both correct
(b)	1	32	
(c)	2	$3p + 2$ [or equivalent]	1 mark for expression with $3p$
(d)	1	Reason to show why 60 is not in the sequence e.g. Pattern 19 is 59 and pattern 20 is 62. None of the numbers are in the 3 times table and 60 is. 60 counters is pattern 19 $\frac{1}{3}$	Award 0 for answers such as: Pattern 60 uses 182 counters. It takes too long to draw.
Total	5		

Question	7		
Part	Mark	Answer	Further Information
(a)	1	15.6	
(b)	2	4, 3 and 2 seen – 1 mark 24 (cm ³) – 1 mark	any order, all correct
(c)	2	39.(26990...)	For 2 marks allow any rounding or truncating of 39.26990... 1 mark for $\frac{1}{2} \times \pi \times 5^2$
Total	5		

Question	8		
Part	Mark	Answer	Further Information
(a)	1	\$1380	
(b)	2	20 (%)	1 mark for $\frac{48}{240} \times 100$
(c)	2	(\$) 156	1 mark for $150 \times \frac{104}{100}$ or $150 + 150 \times \frac{4}{100}$ [or equivalent] or \$6 seen
Total	5		

Question	9		
Part	Mark	Answer	Further Information
	3	Arc radius 7 cm centre A – 1 mark Line 2 cm from AB – 1 mark Intersection labelled T – 1 mark	Tolerance ± 2 mm (Make and use overlay.)
Total	3		

Question	10		
Part	Mark	Answer	Further Information
(a)	1	All cells completed correctly.	
(b) (i)	1	$\frac{1}{25}$ or 0.04 or 4%	Award marks in (b) and (c) if answers follow through correctly from answers given in table.
(ii)	1	0	[Follow through answers given in table.]
(c)	2	$\frac{2}{5}$	[Follow through answers given in table.] 1 mark for $\frac{10}{25}$ or 0.4 or 40%
Total	5		

Question	11		
Part	Mark	Answer	Further Information
	3	<p>Correctly stating Pythagoras' Theorem – 1 mark</p> <p>$40^2 + 25^2 = 1600 + 625 = 2225$ – 1 mark</p> <p>47.(16990...) – 1 mark</p>	Allow any rounding or truncation of the correct answer 47.16990...
Total	3		

