

Mark Scheme (Results) November 2009

GCSE

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5383H/10							
Que	stion	Working	Answer	Mark	Notes		
1			8	2	M1 for 400 ÷ 50 A1 for 8		
2	(a)		43°	1	B1 cao		
	(b)			1	B1 for corresponding angles or F angles or correct full reasons if other method used		
3	(a)	-1, (1), 3, (5), 7, 9	-1, (1), 3, (5), 7, 9	2	B2 for 4 values correct (B1 for 2 or 3 values correct)		
	(b)		Line drawn	2	M1 for plotting at least 5 of their points correctly or single straight line with positive gradient passing thro' (0,3) from x=-2 to x=3 or single straight line of gradient 2 from x=-2 to x=3 or correct straight line that passes through 3 correct points A1 cao for straight line from at least (-2,-1) to (3,9)		
4	(a)	$x^2 + 3x + x + 3$	x ² + 4x + 3	2	M1 for 4 terms correct with or without signs or 3 correct in each case there must be a maximum of 4 terms (the terms may be in an expression or table) or $x(x + 3) + 1(x + 3)$ or $x(x + 1) + 3(x + 1)$ A1 cao		
	(b)		(<i>y</i> + 5)(<i>y</i> - 3)	2	M1 for $(y \pm 5)(y \pm 3)$ A1 cao NB : Use isw if candidate goes onto solve equation		
5	(a)		3 ⁶	1	B1 accept 3 ^{4 + 2}		
	(b)		5 ³	1	B1 accept 5 ^{5 - 2}		

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Question	Working	Answer	Mark	Notes			
6	93 000 000 ÷ 250 000 372	3.72×10²	3	M1 for $9.3 \times 10^7 \div 250\ 000\ oe\ (condone\ any\ error\ converting\ into\ or\ out\ of\ standard\ form)$ A2 for $3.72 \times 10^2\ (A1\ for\ 372)\ SC\ :\ If\ no\ marks\ awarded\ then\ award\ B1\ for\ digits\ 372\ or\ 93\ 000\ 000\ seen\ or\ 2.5 \times 10^5\ seen$			
7	$\frac{2x \times x - 7}{x(2x - 3)}$	$\frac{2x^2-7}{x(2x-3)}$	2	M1 for a correct common denominator eg $x(2x-3)$ oe or $x(2x-3)^2$ oe A1 for $\frac{2x^2-7}{x(2x-3)}$ or $\frac{2x^2-7}{2x^2-3x}$ as final answer			
8	100x = 25.252525 x = 0.252525 $99x = 25 \qquad x = \frac{25}{99}$	$\frac{25}{99}$	2	M1 for valid method eg 100x = 25.2525, $x = 0.2525$ and clear intent to subtract OR 1000x = 252.525, $10x = 2.525$ and clear intent to subtract A1 for valid argument leading to $\frac{25}{99}$ Alternative method for long division M1 for identifying 52 and 25 as remainders A1 for correct statement			
9 (a)(i)		90	1	B1 cao for 90			
(ii)			1	B1 for angle between tangent and radius is 90°			
(b)	Angle $ABO = x$ Angle $ABC = 90 + x$ y = 180 - (x + 90 + x)	90 - 2 <i>x</i>	2	M1 for identifying angle ABO as x or angle BOC as $2x$ these could be seen on the diagram or in working A1 for 90 - $2x$ oe for example, 180 - (90 + $2x$)			

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