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Edexcel GCSE

Mathematics 2381

Paper 5383H/10

November 2008

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Mark Scheme

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5383H/10				
Question	**Working**	**Answer**	**Mark**	**Notes**
1	$= \sqrt{336.63}$	18.347….	2	B2 for 18.347(47939) or $\frac{7\sqrt{687}}{10}$ (B1 for 18.3… or 336.63 seen)
2 (a)		$7e - 6f$	2	B2 (B1 for $7e$ or $-6f$ seen)
(b)		$6c - 4$	1	B1 (accept 6×c−4, c6−4 or equivalent expansion)
(c)		$x(y + 3)$	1	B1
3 (i)		127	2	B1 for 127
(ii)		Alternate angles		B1 for alternate angles (accept *Z* angles) or co-interior angles or angles on a straight line (= 180) and allied (co-interior) angles (= 180) or corresponding angles (accept *F* angles) and (vertically) opposite angles or corresponding angles and angles on a straight line
4	$8 \div 2 = 4$ $10^6 \div 10^{18} = 10^{-12}$	4×10^{-12}	2	B2 for 4×10^{-12} (B1 for sight of 4×10^n or $n \times 10^{-12}$)
5 (a)	$23 \times 10 \times 12$	2760	2	M1 for $23 \times 10 \times 12$ A1 cao
(b)	2760×0.8	2208	2	M1 for '2760' × 0.8 A1 f.t.

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Question	**Working**	**Answer**	**Mark**	**Notes**
6 (a)	$y^2 + 3y + 2y + 6$	$y^2 + 5y + 6$	2	M1 for 3 terms out of y^2 , $3y$, $2y$, 6 or $y^2 + 5y$ (+ c) or $(dy^2 +)5y + 6$ A1 for $y^2 + 5y + 6$
(b)	$\frac{3(x-2)}{(x-2)(x-5)}$	$\frac{3}{x-5}$	2	M1 for $(x \pm 2)(x \pm 5)$ A1 cao
7 (i)		90° and reason	2	B1 for 90°
(ii)				B1 for angle between tangent and radius (is 90°)
8	$\frac{x+3}{4} + \frac{x-5}{3}$ $= \frac{3(x+3)+4(x-5)}{12}$ $= \frac{3x+9+4x-20}{12} = \frac{7x-11}{12}$	$\frac{7x-11}{12}$	3	M1 for adding with a common denominator of 12 and at least one equivalent fraction correct M1 for $\frac{3(x+3)+4(x-5)}{12}$ or $\frac{3x+9+4x-20}{12}$ A1 for $\frac{7x-11}{12}$
9	$100x = 47.3737\ldots$ $x = 0.4737\ldots$ $99x = 46.9$ $x = 46.9/99$	proof	2	M1 for valid method eg $100x = 47.37373$, $1x = 0.4737\ldots$ and subtract OR $1000x = 473.7373$, $10x = 4.737\ldots$ and subtract A1 for valid argument leading to $\frac{469}{990}$