

Edexcel GCSE

Mathematics 2381

Paper 5383H/10

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Mark Scheme

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 $6 \times c - 4$ , $c6 - 4$ 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	$8 \div 2 = 4$ $10^6 \div 10^{18} = 10^{-12}$	$4 \times 10^{-12}$	2	B2 for $4 \times 10^{-12}$ (B1 for sight of $4 \times 10^n$ or $n \times 10^{-12}$ )
5 (a)	$23 \times 10 \times 12$	2760	2	M1 for $23 \times 10 \times 12$ A1 cao
(b)	$2760 \times 0.8$	2208	2	M1 for '2760' $\times 0.8$ 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)		$90^\circ$ and reason	2	B1 for $90^\circ$
(ii)				B1 for angle between tangent and radius (is $90^\circ$ )
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	$100x = 47.3737\dots$ $x = 0.4737\dots$ $99x = 46.9$ $x = 46.9/99$	proof	2	M1 for valid method eg $100x = 47.37373, 1x = 0.4737\dots$ and subtract  OR $1000x = 473.7373, 10x = 4.737\dots$ and subtract A1 for valid argument leading to $\frac{469}{990}$