

Mark Scheme (Results) Summer 2010

GCSE

GCSE Mathematics (Modular) - 2381
Paper: 5381H/ 10

Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

Through a network of UK and overseas offices, Edexcel's centres receive the support they need to help them deliver their education and training programmes to learners.

For further information, please call our GCE line on 0844 576 0025, our GCSE team on 0844 576 0027, or visit our website at www.edexcel.com

Summer 2010

Publications Code UG024451

All the material in this publication is copyright

© Edexcel Ltd 2010

5383H/10				
Question	Working	Answer	Mark	Notes
1	$(40 \div 5) \times (30 \div 10) \times (30 \div 6)$	120	3	<p>M1 for $40 \div 5$ or $30 \div 10$ or $30 \div 6$ or $40 \div 10$ or $30 \div 5$ or at least two of 8, 3, 5 seen. M1 (dep) for $(40 \div 5) \times (30 \div 10) \times (30 \div 6)$ or $(40 \div 10) \times (30 \div 6) \times (30 \div 5)$ or “8”x”5”x”3” or “4”x”5”x”6” A1 cao</p> <p>OR</p> <p>M1 for $6 \times 10 \times 5$ or 300 or $30 \times 30 \times 40$ or 36000 M1 (dep) for $(30 \times 30 \times 40) \div (6 \times 10 \times 5)$ or “36000” \div “300” A1 cao</p>
2 (a)		$4a - 3b$	2	B2 cao (B1 for $4a$ or $-3b$ seen)
(b)		$4x - 8$	1	B1 cao
3		8.87605 (042.)	2	<p>M1 for 42.25 seen or 4.76 seen A1 for 8.87605 (042...) SC: B1 for $\frac{4225}{476}$ or $8\frac{417}{476}$ or answer in range 8.8-8.9 inclusive</p>

5383H/10				
Question	Working	Answer	Mark	Notes
4 (i)		7^8	2	B1 for 7^8 , accept 7^{6+2}
(ii)		7^4		B1 for 7^4 , accept 7^{9-5}
5	7850×4	31400	2	M1 for 7850×4 A1 cao
6	$(6 \times 10^7) \div (3 \times 10^4)$	2×10^3	2	M1 for $(6 \times 10^7) \div (3 \times 10^4)$ or "60000000"÷"30000" A1 for 2×10^3 or 2000
7		C, B, A, D	2	B2 all correct (B1 for 2 or 3 correct)
8	$(180 - 100) \div 2 = 40$ $90 - 40 = 50$	50	3	M1 for identifying angle OAC as 90° or angle BAO or angle ABO as 40° , could be marked on the diagram or $(180-100) \div 2$ A1 cao B1 for (base angles of an) isosceles triangle (are equal) and angles in a triangle add up to 180° and angle between tangent and radius is 90°

5383H/10				
Question	Working	Answer	Mark	Notes
9	$\frac{3x^2 + x - 4}{2x^2 - 2x} = \frac{(3x + 4)(x - 1)}{2x(x - 1)}$	$\frac{3x + 4}{2x}$	3	M1 for $(3x + 4)(x - 1)$ M1 for $2x(x - 1)$ A1 cao
10	$n + n + 1 + n + 2 = 3n + 3$	Proof	3	M1 for three consecutive numbers expressed algebraically, eg. $n, n + 1, n + 2$ oe M1(dep) for “n”+”n+1”+”n+2” A1 for “ $3n + 3$ ” and correct reasoning, e.g. ‘ $3n + 3$ is divisible by 3 as $3n + 3 = 3(n + 1)$ ’ or ‘ $3n + 3$ is divisible by 3 as both $3n$ and 3 are divisible by 3’ or ‘3 is a factor of $3n + 3$ ’ or ‘ $3n + 3 = 3(n + 1)$ ’ or ‘ $(3n + 3) \div 3 = n + 1$ ’

Further copies of this publication are available from
International Regional Offices at www.edexcel.com/international

For more information on Edexcel qualifications, please visit www.edexcel.com
Alternatively, you can contact Customer Services at www.edexcel.com/ask or on + 44 1204 770 696

Edexcel Limited. Registered in England and Wales no.4496750
Registered Office: One90 High Holborn, London, WC1V 7BH