

Topic Test 1 Mark Scheme

Further quadratics, rearranging formulae and identities - Higher

Q	Answer	Mark	Comments
1(a)	$\frac{x-3}{2}$	B1	
1(b)	$2x^2 + 3$	B1	
2	πr or πR	M1	oe
	$\pi r + \pi R + 2R$	A1	
3	$27x^6y^3$	B2	B1 for 2 of 27 or x^6 or y^3 correct
4	$2x^2 - 9x - 5$ or $6x^2 + 7x + 2$ or $3x^2 - 13x - 10$	M1	
	$6x^3 - 23x^2 - 33x - 10$	A2	A1 Any 2 terms correct
5	$(p-a)^2 \equiv p^2 - 2ap - a^2$	B1	
6	$2(9a^2 - 16)$	M1	
	$2(3a-4)(3a+4)$	A1	
7	$(ax \pm c)(bx \pm d)$	M1	$ab = 12$ and $cd = 3$
	$(3x+1)(4x-3)$	A1	

Q	Answer	Mark	Comments
8	$y(4x + 5) = 2x - 1$	M1	
	$4xy - 2x = -1 - 5y$	M1dep	
	$x = \frac{-1-5y}{4y-2}$ or $\frac{1+5y}{2-4y}$	A1	
9	$(3x + 2)(3x - 2)$ and $(2x + 3)(3x - 2)$	M1	
	$d = 9$	A1	
	$a = 6$ and $b = 5$ and $c = -6$	A1	