

Topic Test 1 Mark Scheme

Introduction to quadratics and rearranging formulae - Higher

Q	Answer	Mark	Comments
1(a)	x^6	B1	
1(b)	$4y^6$	B2	B1 for 4, B1 for y^6
2	$x^2 - 5x + 2x - 10$	M1	Allow one sign or arithmetic error but must have 4 terms, one in x^2 two in x and a constant term
	$x^2 - 3x - 10$		
3	$2w = P - 2l$	M1	
	$w = \frac{P - 2l}{2}$	A1	
4(a)	$(x - 6)(x + 6)$	B1	Either order
4(b)	$(3x - 4)(3x + 4)$	B2	Either order B1 for $\pm 3x$ B1 for ± 4
5	$9a - 6b$ or $15a - 10b$	M1	oe
	$\frac{3(3a - 2b)}{5(3a - 2b)} = \frac{3}{5}$	A1	
6	$(x \pm a)(x \pm b)$	M1	$ab = 14$
	$(x + 7)(x - 2)$	A1	

Q	Answer	Mark	Comments
7	(width =) $2x + 1$	B1	
	$(3x - 1) \times$ their $(2x + 1)$	M1dep	
	$6x^2 + x - 1$	A1ft	ft their width
8(a)	$r = \frac{A}{\pi l}$	B1	
8(b)	$l^2 = r^2 + h^2$	B1	
8(c)	$V = \frac{1}{3}\pi r^2 \sqrt{l^2 - h^2}$	B1	