## Algebra: Quadratics, Rearranging Formulae and Identities Calculator 20 minute test 4

Q	Answer	Mark	Comments
1	$x^2 - 7x - 8x + 56$	M1	Allow one error, must have 4 terms
	$x^2 - 15x + 56$	A1	
	( , , , , , , , , , , , , , , , , , , ,		
2	(x+13)(x-13)	B1	
3	$(x \pm 20)(x \pm 1)$	M1	
	(x-20)(x-1)	A1	
4(a)	a <sup>30</sup>	B1	
4(b)	$a^{24}$	B1	
4(c)	$a^{27}b^{6}$	B1	
5	$\left(3 - \frac{1}{2}\right)^2$ their 2.5 <sup>2</sup> $\frac{25}{4}$	M1 M1 A1	Attempt is made to substitute $x = -\frac{1}{2}$ Attempt is made to square their expression M2A0 for 6.25. Must be a fraction.
6	+5	B1	Or uses words
	× 2	B1	Or uses words
7	$180 \times (24 - 2) \div 24$	M1	Attempts to substitute into the formula
	165	A1	
8	$\left(\sqrt{h-5}\right)^2 = g^2$	M1	Squares both sides
	$h = g^2 + 5$	A1	

Q	Answer	Mark	Comments
9	$3a$ their $3a + a^2 - a = a^2 + 2a$	B1 M1	$ \begin{array}{ c c c c } \hline 3a^2 + 5a \\ \hline 2a^2 + 3a & a^2 + 2a \\ \hline 2a^2 & 3a & a^2 - a \end{array} $
	$3a^2 + 5a = a(3a + 5)$	A1	