

Question	Answer	Marks	Guidance
(a)	$\{2(x-4)^2\} \quad \{-9\}$	<b>B1 B1</b>	OE When $a$ and $b$ stated give priority to marking algebraic expression.
		<b>2</b>	
(b)	$y > -7$	<b>B1</b>	Allow $f(x) > -7$ or $(-7, \infty)$ Don't allow $x > -7$ .
		<b>1</b>	
(c)	$(x-4)^2 = \frac{y+9}{2}$	<b>M1</b>	2 operations correct. Allow a sign error.
	$x = 4 [\pm] \sqrt{\frac{y+9}{2}}$	<b>M1</b>	2 operations correct. Allow a sign error.
	$[f^{-1}(x) =] 4 - \sqrt{\frac{x+9}{2}}$	<b>A1 FT</b>	OE FT on <i>their</i> answer to <b>(a)</b> i.e. $-a - \sqrt{\left(\frac{x-b}{2}\right)}$ .
		<b>3</b>	
(d)	$fg(x) = f(2x+4) = 2(2x+4-4)^2 - 9$	<b>M1</b>	Allow $2(2x+4)^2 - 16(2x+4) + 23$ .
	$8x^2 - 9$ only	<b>A1</b>	
		<b>2</b>	