i		State range of f is $f(x) \geq 3a$ or $y \geq 3a$	B1	Allow $f \geq 3a$ or equiv expression in words but $3a$ to be included
		State range of g is all real numbers or equiv such as $y \in \mathbb{R}$ (real numbers)	B1 [2]	

Question			Answer	Marks	Guidan
ii			State function is not $1-1$ or different x-values give same y-value or equiv	B1	no credit for 'no inverse due to modulus' nor for 'cannot be reflected across $y=x$'
			Obtain form $k(y+4a)$ or $k(x+4a)$	M1	for non-zero constant k
			Obtain $\frac{1}{5}(x+4a)$ or $\frac{1}{5}x+\frac{4}{5}a$	A1 [3]	Must finally be in terms of x
iii			Either Attempt composition of functions the right way round	M1	Earned for 5(what they think f(x) is) – $4a$
			Obtain $5\lvert 2x+a\rvert+11a=31a$ or equiv	A1	
			Or Apply their g^{-1} to $31a$	M1	
			Obtain $\lvert 2x+a\rvert+3a=7a$ or equiv	A1	
			Either Solve $2x+a=4a$ and obtain $\frac{3}{2}a$	B1 FT	Following their $\lvert 2x+a\rvert=ka$
			Solve linear equation in which signs of (their) $2x$ and (their) $4a$ are different	M1	Condone other sign slips
			Obtain $-\frac{5}{2}a$	A1	And no others; obtaining $-\frac{5}{2}a$ and then concluding $\frac{5}{2}a$ is A0
			Or Square both sides and obtain $4x^2+4ax-15a^2=0$	B1 FT	Following their $\lvert 2x+a\rvert=ka$
			Solve 3-term quadratic equation to obtain two values	M1	Allow M1 if factorisation wrong but expansion gives correct first and third terms; allow M1 if incorrect use of formula involves only one error
			Obtain $-\frac{5}{2}a$, $\frac{3}{2}a$	A1 [5]	And no others; continuing from two correct answers to conclude $\frac{5}{2}a$, $\frac{3}{2}a$ is A0