

Q	Marking instructions	AO	Marks	Typical solution
11(a)	Explains that 3 is not in $3 < k < 4$ OE	2.4	E1	3 is not in the interval
	Subtotal		1	

Q	Marking instructions	AO	Marks	Typical solution
11(b)(i)	Explains that $3 < y < x$ which contradicts the definition of x as the smallest value OE	2.4	E1	y is between 3 and x which contradicts the definition of x as the smallest value in $(3, 4)$
	Subtotal		1	

Q	Marking instructions	AO	Marks	Typical solution
11(b)(ii)	Assumes there is a largest value in $(3, 4)$ OE	2.1	B1	Step 1: Assume there is a largest number in the interval $3 < k < 4$ and let this largest number be x Step 2: let $y = \frac{x+4}{2}$ Step 3: $x < y < 4$ which is a contradiction. Step 4: Therefore, there is no largest value in $3 < k < 4$
	Constructs a value " y " in $(3, 4)$ which is greater than their " x " Must have referenced their " x " before this step	2.2a	B1	
	States that $x < y < 4$ which is a contradiction OE	2.4	E1	
	Concludes that there is no largest value in $(3, 4)$ OE CSO	2.1	R1	
	Subtotal		4	

	Question 11 Total		6	
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