Section A

1	(a)	Correct graph drawn	1		
	(b)	Correct graph drawn	1		
			2		
2		45π	2	M1	$\pi 9^2$ and $\pi 6^2$ seen or 254(·..) and 113(·..) or 141 – 141·4
			2		
3	(a)	$4n - 1$	2	M1	$4n$ or $n = 4n - 1$ or $4x - 1$
	(b)	$\frac{n}{4n-1}$	1		ft their denominator if a linear expression
			3		
4		$x \leq 4$	1		SC1 for $x = 4$ **and** $y = 3$
		$y \leq 3$	1		**or** both inequalities reversed
		$x + y \geq 4$, o.e.	2	M1	$x + y = 4$ or $x + y \leq 4$
			4		Condone use of < instead of ≤ throughout
5		Box plot correct	4	W1	for each of three readings LQ = 0·8, Median = 2·2, UQ = 3·0
				W1	for box plot from their readings
			4		
6	(a)	5^5	2	M1	5^7 seen or $\frac{5^4}{5^2} = 5^2$ or $\frac{5^3}{5^2} = 5$ or $5^4 \times 5$ or $5^2 \times 5^3$ or $5 \times 5 \times 5 \times 5 \times 5$ or 3125. $5^{3\cdot5} \Rightarrow$ M1
	(b)	3×10^4	2	M1	30×10^3 o.e. or 30 000 or 3 or 10^4
	(c)	(i) $2\sqrt{2}$	1		
		(ii) $\sqrt{2}$	2	M1	$3\sqrt{2}$ seen or $\sqrt{18} = \sqrt{9}.\sqrt{2}$. f.t. **(i)** if of the form $a\sqrt{2}$
			7		
7		$6x - 2y = 2$ or $3x + 6y = 36$			c.a.o. If both eqns multiplied then both must be corre
		or $x + 2(3x - 1) = 12$ or $3(12 - 2y) - y = 1$	1		Condone $2 \times 3x - 1$ …
		$7x = 14$ or $7y = 35$	1		allow one error (from a correct method)
		$x = 2$, $y = 5$	1		W1 only for correct x,y with no algebra.
			3		For 3 marks complete algebraic method must be seen
			25		