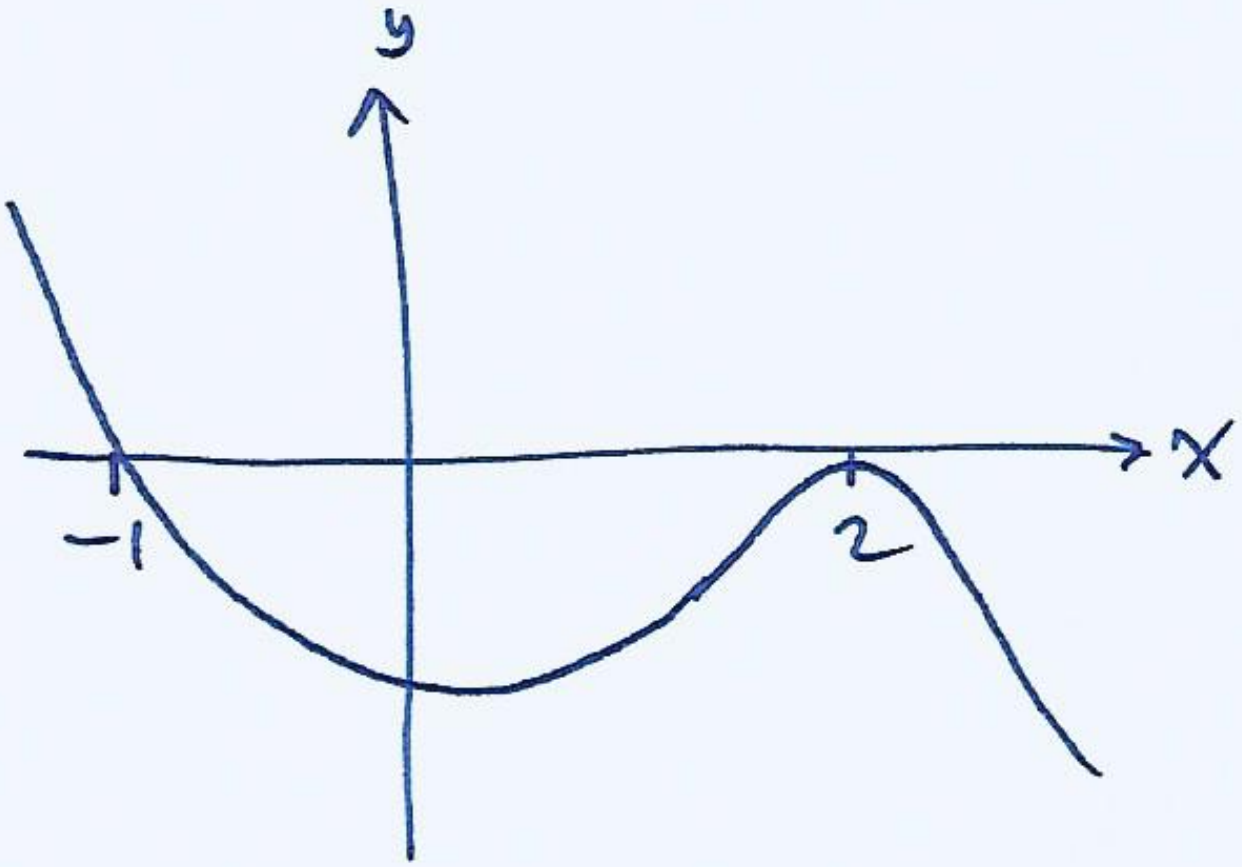
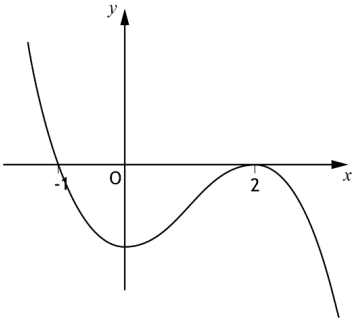
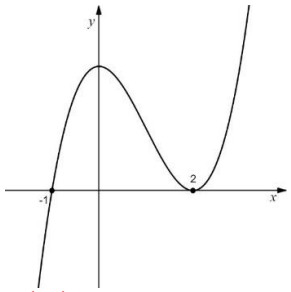
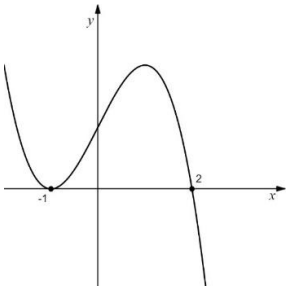
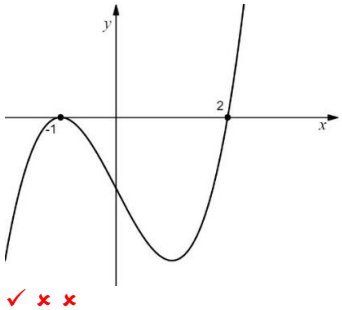
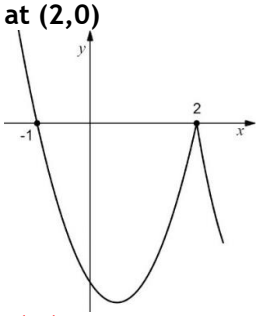
④ (a) Right 4, up 2

$\therefore$ $(-1+4, 3+2) = (3, 5)$

(b)



Question			Generic scheme	Illustrative scheme	Max mark
4.	(a)		•[1] identify x-coordinate •[2] identify y-coordinate	•[1] 3 •[2] 5	**2**
Notes:					
Commonly Observed Responses:					
	(b)		•[3] identify roots •[4] interpret point of inflection •[5] identify orientation and complete cubic curve	•[3] "cubic" with roots at -1 and 2 •[4] "cubic" with turning point at (2,0) •[5] cubic with maximum turning point at (2,0) 	**3**
Notes:					
1. Note that the position of the minimum turning point of $f'(x)$ is not being assessed. 2. Where a candidate has not drawn a cubic curve or their graph does not extend outwith $-1 \le x \le 2$ award 0/3. However see Candidate D. 3. Do not penalise the appearance of an additional root outwith $-1 \le x \le 2$ (on a cubic curve) at •[3].					
Commonly Observed Responses:					
Candidate A - $-f'(x)$  ✓ ✓ ×				**Candidate B**  ✓ × ×	

Question	Generic scheme	Illustrative scheme	Max mark
4. (b) (continued)			
Candidate C  ✓ × ×		**Candidate D – left derivative ≠ right derivative at (2,0)**  ✓ ✓ ×	