Exercise 1 Calc. : ✓

Consider the function $f(x) = -x^3 - 3x^2 + 5x + 7$ and its graph F.	
1. Draw a table of signs showing the variations of function f.	6 marks
2. Find the coordinates of the turning points of F and state their nature. Give answers correct to 1 d.p.	2 marks
3. Find the equation of the tangent to the graph at $x = -1$.	2 marks
4. Find the coordinates of the points on F where the tangent has slope 5.	2 marks
5. Find the equation of the tangents to F with slope 5.	2 marks