**Exercise 1**

Consider the function $f(x) = x^2 - 2x - 8$ and its graph F.

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| 1. Find the coordinates of the turning point of F. | 2 marks |
| 2. Write the equation of the tangent to F at $x = 2$. | 4 marks |
| 3. Find the coordinates of the intersection point of F with the line $y = -x - 2$. | 4 marks |