13 **(a)** The cubic polynomial $f(x)$ has the following properties.

- The equation $f(x) = 0$ has a repeated root $x = \frac{1}{2}$.
- $(x+3)$ is a factor of $f(x)$.
- The curve $y = f(x)$ cuts the y-axis at $(0, -0.6)$.

Sketch the graph of $y = f(x)$ on the axes in the Printed Answer Booklet. **[2]**

(b) Determine the equation of the curve $y = f(x)$ in the form $y = ax^3 + bx^2 + cx + d$, where a, b, c and d are constants to be determined. **[3]**