1. Use synthetic division to divide $f(x) = x^3 - 2x^2 - x + 2$ by $x + 1$. Use the result to find all the zeros of $f(x)$. (Recall: the zeros of $f(x)$ are the $x$ values such that $f(x) = 0$.)

2. Solve the equation $2x^3 - 5x^2 + x + 2 = 0$ given that 2 is a zero of $f(x) = 2x^3 - 5x^2 + x + 2$.

3. Find all the $x$-intercepts of $f(x) = 2x^4 - 3x^3 - 4x^2 + 3x + 2$. 

**Synthetic Division**