Zeros of Polynomial Functions

1. Find the real zeros of the polynomial function.

$$f(x) = x^3 - x^2 - 4x + 4$$

2. If $(x+4)$ is a factor of $f(x) = x^3 + 6x^2 + 5x - 12,$ find the remaining factors.

3. Find the possible rational zeros of $f(x) = 3x^3 + 2x^2 - 3x + 4.$

4. If $x = 1$ is a zero of $f(x) = 2x^3 - 15x^2 + 34x - 21$, find the remaining zeros.

5. Find the real zeros of $f(x) = x^3 - 31x - 30$.

6. Write a polynomial function that has the given zeros.

   a) -5, -1, 2

b) -1, 2, $3i$