Polynomials: Solving+Factoring

1) Solve $x^3 + x^2 - 2x - 2 = 0$

2) Solve $x^4 - 4x^3 + 6x^2 - 4x - 2005 = 0$.

3) Solve $x^4 - 2x^3 + 4x^2 - 2x + 1 = 0$

4) Solve $x^4 - x^3 - 5x^2 + 2x + 6 = 0$

5) Factor $a^3 + b^3 + c^3 - 3abc$ as the product of two symmetric polynomials.

6) Find all reals such that $2000x^6 + 100x^5 + 10x^3 + x - 2 = 0$

7) Find all real x such that $5x^4 - 10x^3 + 10x^2 - 11 = 0$

8) Factor $x^4 + 4y^4$.

9) Factor $x^8 + 34x^4 + 1$ as the product of two polynomials with integer coefficients