Factorization over the complex numbers

Factorize the followings up to linear complex number factors of the form $[z \pm (a + bi)]$, where a, b are real numbers. As an example, $z^2 + 1 = (z + i)(z - i)$

1. $z^4 - 5z^2 - 6$

2. $z^4 + 4$

3. $z^3 + z - 2$

4. $z^5 + z^4 + z^3 + z^2 + z + 1$

5. $z^4 - z^3 + 2\,z^2 - z + 1$

6. $z^3 + i$