Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Factor completely the polynomial $x^3 + 3x^2 - 5x - 15$.

2. Factor completely the polynomial $x^{13} - 10x^7 + 25x$.

3. Factor completely the following polynomials

(a)
$$2x^2 - 17x + 21$$

(b)
$$15x^2 - x - 6$$