

YOUR NAME: _____

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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 the following polynomials completely:

(a) $x^7 - 4x^6 =$

(b) $18x^6 + 24x^3 + 8 =$

(c) $-9x^2 + 33x + 12 =$

2. Solve the following equations:

(a) $x^3 + 9x^2 + 20x = 0.$

(b) $(x + 2)(x + 3) = 20$