

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. Perform the long division to find the quotient and the remainder of

$$(x^7 + 5x^5 - 3) \div (x^2 - 1)$$

2. Solve the following rational equation for x .

$$\frac{2}{x+3} - \frac{x-50}{x^2+2x-3} = \frac{x}{x-1}$$