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. Divide and simplify

$$\frac{4x-2}{x^2-5x} \div \frac{2x^2+9x-5}{x^2-25}$$

2. Add and simplify

$$\frac{1}{x+1} + \frac{1}{x^2-1} - \frac{1}{x-1}$$