

Instructions: Show all work. Use exact answers unless specifically asked to round. Answer all parts of each question.

1. Use partial fraction decomposition to decompose the rational expression $\frac{7}{(7x-6)(x^2+9)}$. Solve the for unknowns.

2. Set up the partial fraction decomposition for the expression $\frac{x^2+1}{x(4x-1)^2(x^2+5)(x^2+4)^3}$. Do not solve for the coefficients.