Each problem is worth 5 points. For full credit provide complete justification for your answers.

1. Add $\dfrac{3x+8}{x^2} - \dfrac{2x-1}{x^3} - \dfrac{5}{8x}$ and reduce if necessary.

2. Simplify $-3(x^3+3)^{-4}(3x^2)$, and write the answer using positive exponents only.

3. Simplify $(16x^{12}y^{-4})^{1/4}$