

4. [7 points] Use the partial fraction decomposition

$$\frac{4x^2 + 11x - 9}{(5 - 2x)(x^2 + 1)} = \frac{6}{5 - 2x} + \frac{x - 3}{x^2 + 1}$$

to evaluate the following indefinite integral, showing all of your work.

$$\int \frac{4x^2 + 11x - 9}{(5 - 2x)(x^2 + 1)} \, dx$$

Answer: _____