1. Evaluate each of the integrals shown below. Be sure to show all your work and indicate the methods used.

(a) \[ \int \frac{2x + 4}{x^2 + 4x - 5} \, dx \]

(b) \[ \int_1^2 \frac{2x}{x^2 - 2x + 2} \, dx \]

(c) \[ \int_{\sqrt{2}}^2 \frac{1}{x^2 \sqrt{x^2 - 1}} \, dx \]