1. (4 points) Evaluate the following integral.

$$\int \frac{dx}{(1 + 4x^2)^2}$$
2. (3 points) Evaluate the following integral.

\[ \int \frac{dx}{\sqrt{6x - x^2}} \]
3. (3 points) Evaluate the following integral.

\[ \int \frac{\sqrt{x^2 - 4}}{x^2} \, dx \]