

Evaluate the following integrals, and *check your answers!!*

1. $\int \frac{1}{\sqrt{1-x}} dx \quad (u = 1 - x)$

2. $\int x \sin(\pi x^2) dx \quad (u = \pi x^2)$

3. $\int_1^3 \frac{x}{1+x^2} dx \quad (u = 1 + x^2)$

4. $\int \frac{x}{1+x^4} dx \quad (u = x^2)$

5. $\int_2^5 \frac{1}{x \ln(x)} dx \quad (u = \ln(x))$