1. Find a power series representation for $f(x) = \frac{1}{x + 10}$.

2. Find a power series representation for $f(x) = \frac{x}{2x^2 + 1}$.

3. Find a power series representation for $f(x) = \frac{1 + x}{1 - x}$.

4. Evaluate the indefinite integral as a power series.

$$\int \frac{\ln(1 - t)}{t} dt$$

5. Find the Taylor Series for $\cos(x)$ at centered at 0.

6. Find the Taylor Series for $\cos(x)$ centered at $\pi/4$.

7. Find the Taylor Series centered at 0 for $f(x) = e^x + e^{-x}$.

8. Find the Taylor Series centered at 1 for $f(x) = e^x + e^{-x}$.