

Name: \_\_\_\_\_

Solve the following problems.

1. Compute  $\int \frac{1}{t \ln(t) \sqrt{\ln^2(t)-1}} dt$ .

2. Compute  $\int \frac{dx}{\sqrt{1-e^{2x}}}$ .

3. Compute  $\int \frac{1}{\sqrt{x} + x^{\frac{3}{2}}} dx$ .

4. Compute  $\int e^{4x} \sqrt{1 - e^{2x}} dx$ .

5. Compute  $\int \frac{1}{(1+x^2)\sqrt{1+\arctan^2(x)}} dx$ .

6. Compute  $\int_4^\infty \frac{1}{x^3 - x} dx$

7. Compute  $\int_7^\infty \frac{x+1}{(x^2+1)(x-1)} dx$