

MTH 1126 Test #3

SPRING 2019

Pat Rossi

Name _____

Show **CLEARLY** how you arrive at your answers.

1. $\int x e^x dx =$

2. $\lim_{x \rightarrow 0} \frac{\cos(x) - e^{-x}}{x} =$

3. $\int \frac{12}{x^2 - 4} dx =$

4. $\int \sin^3(x) \sqrt{\cos(x)} dx =$

5. $\int \frac{1}{x^2 \sqrt{16-4x^2}} dx =$

6. $\lim_{x \rightarrow \infty} \frac{\ln(x)}{e^x} =$

7. $\int \sin^2(x) dx =$

WOW! Extra (10 pts - all or nothing)

$$\int e^x \sin(x) dx =$$