

- 5- Evaluate $\int x^2 \ln x \, dx$
- A- $= \frac{1}{9}x^3(3\ln x - 1) + c$
- B- $= \frac{1}{3}x^3 \ln x - \frac{1}{9}x^2 + c$
- C- $= \frac{1}{3}x^3(3\ln x - 1) + c$
- D- $= 3x^3 \ln x + \frac{1}{9}x^3 + c$

- 6- Evaluate $\int \frac{\ln x}{x} \, dx$
- A- $= \frac{1}{2} \ln x + c$
- B- $= \frac{1}{2}(\ln x)^2 + c$
- C- $= x \ln x + c$
- D- $= 2(\ln x)^2 + c$

- 7- Evaluate $\int x^2 e^{-3x} \, dx$
- A- $= \frac{-1}{27} e^{-3x}(9x^2 + 2x + 2) + c$
- B- $= \frac{1}{27} e^{-3x}(9x^2 + 6x + 2) + c$
- C- $= \frac{-1}{27} e^{-3x}(9x^2 + 6x + 2) + c$
- D- $= -27e^{-3x}(9x^2 + 6x + 2) + c$

- 8- Evaluate $\int e^x \sin 4x \, dx$
- A- $= \frac{-4}{17} e^x \cos 4x + \frac{1}{17} e^x \sin 4x + c$
- B- $= \frac{-2}{17} e^x \cos 4x - \frac{1}{17} e^x \sin 4x + c$
- C- $= \frac{-4}{17} e^x \cos 4x - \frac{1}{17} e^x \sin 4x + c$
- D- $= \frac{-2}{17} e^x \cos 4x + \frac{1}{17} e^x \sin 4x + c$