5- Evaluate $\int x^2 \, lnx \, dx$

A- $= \frac{1}{9}x^3(3lnx - 1) + c$

B- $= \frac{1}{3}x^3 lnx - \frac{1}{9}x^2 + c$

C- $= \frac{1}{3}x^3(3lnx - 1) + c$

D- $= 3x^3 lnx + \frac{1}{9}x^3 + c$

6- Evaluate $\int \frac{lnx}{x} \, dx$

A- $= \frac{1}{2}lnx + c$

B- $= \frac{1}{2}(lnx)^2 + c$

C- $= xlnx + c$

D- $= 2(lnx)^2 + c$

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 $\int e^x sin4x dx$

A- $= \frac{-4}{17}e^x cos4x + \frac{1}{17}e^x sin4x + c$

B- $= \frac{-2}{17}e^x cos4x - \frac{1}{17}e^x sin4x + c$

C- $= \frac{-4}{17}e^x cos4x - \frac{1}{17}e^x sin4x + c$

D- $= \frac{-2}{17}e^x cos4x + \frac{1}{17}e^x sin4x + c$