

Integration Worksheet 1
Show ALL work

MATH 2414 - Calculus II
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Important note: In the answers, log always refers to the natural log (i.e., ln). Please continue to use ln in your work. (Also, of course, you may have to do a little simplification or factoring to match your answers with the provided answers here. You are also responsible for supplying your own +C's. I have to conserve my C's; my printer is almost out of that ink...)

1) $\int \frac{\ln(x)}{x} dx$

2) $\int (2x - 1) \sqrt{3x - 5} dx$

3) $\int \frac{1}{\sqrt{e^{2x} - 1}} dx$

4) $\int \frac{1}{x(\ln^2(x) + 4)} dx$

5) $\int \operatorname{arcsec}(x) dx$

6) $\int x^3 \cos(x) dx$

7) $\int \sin^2(x) \cos^3(x) dx$

8) $\int \frac{1}{(x^2 - 4)^2} dx$

9) $\int \sqrt{5 - x^2} dx$

10) $\int \frac{x^3}{\sqrt{4 - x^2}} dx$

11) $\int \frac{x^5 - 4x^2}{x^2 - 1} dx$

12) $\int \ln(6x) dx$

13) $\int \frac{x - 1}{x^3 - 8} dx$

14) $\int \sec^6(x) \tan^5(x) dx$

15) $\int \sin^4(x) dx$

16) $\int \frac{x + 5}{x^4 - x^2} dx$

