

2 pts. Each
No Decimals!

Name: _____

Homework #4
Integration by Substitution

Answers

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

2. $\int x^2 e^{x^3-1} dx$

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

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

5. $\int \frac{e^x - e^{-x}}{(e^x + e^{-x})^{\frac{3}{2}}} dx$

6. $\int \frac{(\ln x)^3}{x} dx$

7. $\int \frac{1}{x(\ln x)^2} dx$

8. $\int \frac{(\ln x)^{\frac{7}{2}}}{x} dx$

9. $\int \frac{x^4}{1-x^5} dx$

10. $\int \frac{e^x}{1+e^x} dx$

11. $\int \frac{e^{3x} + x^2}{(e^{3x} + x^3)^3} dx$

12. $\int \frac{1}{x \ln x} dx$

13. $\int_0^1 \frac{x}{x^2+3} dx$ (Write answer as a SINGLE logarithm)