

Math 150
K.A. Pericak-Spector

Integration

Name_____

Evaluate:

1. $\int (3x^2 - 2x + 1)dx$

2. $\int (\cos x - e^x)dx$

3. $\int \left(\frac{x^2 + 2x + 4}{x} \right) dx$

4. $\int (x^2 - 1)(x^2 + 1)dx$

5. $\int (\tan^2 x + 1) dx$

6. $\int \sin 4x dx$

7. $\int \frac{\ln x}{x} dx$

8. $\int -2xe^{-x^2} dx$

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

10. $\int (e^{2x} - \sec^2 3x)dx$

11. $\int (\cosh x + \sinh x)dx$

12. $\int \tan x dx$

13. $\int (x^2 + 1)^2 dx$

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

15. $\int x(x^2 + 1)^2 dx$

16. $\int (\sqrt{x} - \sqrt[3]{x})dx$

17.
$$\int (\sin^2 x + \cos^2 x) dx$$

18.
$$\int \frac{\sec^2(\ln x)}{x} dx$$

19.
$$\int (e^{-x} - \sin x) dx$$

20.
$$\int_0^\pi \sin x \cos x \csc x \sec x dx$$

21.
$$\int_{-1}^2 |x - 1| dx$$

22.
$$\int (4x^5 - 7x^3 + 2x) dx$$

23.
$$\int x^3 (1 + x^2)^{1/2} dx$$

24.
$$\int 2x \cos(x^2 + 1) dx$$

25.
$$\int_0^1 e^x (e^x + 1) dx$$

26.
$$\int_1^2 e^{\ln(x^2+1)} dx$$