

Practice problems from the review section of Chapter 8.

I. u -substitution:

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

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

6. $\int_{3/2}^2 2x\sqrt{2x-3} dx.$

II. By parts.

10. $\int (x^2 - 1)e^x dx.$

12. $\int \arctan 2x dx.$

III. Trig. identity.

18. $\int \sin^2 \frac{\pi x}{2} dx.$

20. $\int \tan \theta \sec^4 \theta d\theta.$

IV. Trig. substitution.

26. $\int \frac{\sqrt{x^2-9}}{x} dx.$

V. Any method.

50. $\int \frac{\csc \sqrt{2x}}{\sqrt{x}} dx.$

56. $\int (\sin \theta + \cos \theta)^2 d\theta.$