

Ejercicios sobre integrales con potencias trigonométricas

En los ejercicios siguientes, calcule la integral que involucra funciones trigonométricas

1. $\int \sec^2 2x \, dx$

2. $\int \sec^5 5x \, dx$

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

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

5. $\int \frac{1}{\sec^2 x} dx$

6. $\int \sec^2 2\theta \cos^5 2\theta$

7. $\int \tan^5 2x \cdot \sec 2x \cdot dx$

8. $\int \tan^5 3x \cdot \sec 3x \cdot dx$

9. $\int \frac{\sec^4 2x}{\tan^4 2x} dx$

10. $\int \frac{\sec^4 3x}{\tan^5 3x} dx$

11. $\int \frac{\tan^3 \theta}{\sec^2 \theta} d\theta$

12. $\int \frac{\tan^3 \theta}{\sec^3 \theta} d\theta$

13. $\int \sec^3 x \cos^3 x \, dx$

14. $\int \frac{\sec^6 \theta}{\tan^2 \theta} d\theta$

15. $\int \cos^3 2x \, dx$

16. $\int \cos^4 2x \, dx$

17. $\int \frac{\cos^3 \theta}{\sqrt{\sec \theta}} d\theta$

18. $\int \frac{\cos^3 \theta}{\sec^3 \theta} d\theta$

19. $\int \cos^6 3x \, dx$

20. $\int \cot^5 3x \, dx$

21. $\int \tan^5 \pi x \, dx$

22. $\int \csc^4 \pi x \, dx$

23. $\int \tan^5 3x \cdot \sec^2 3x \cdot dx$

24. $\int \frac{\sec^4 \theta}{\tan^2 \theta} d\theta$

25. $\int \sec^5 2x \, dx$

26. $\int \frac{\tan x + \sec x}{\sec x} dx$

27. $\int \frac{\cot x + \csc x}{\sec x} dx$

28. $\int \frac{\cot x + \csc^2 x}{1 - \cos^2 x} dx$

29. $\int \frac{\cot x + \csc^2 x}{\sec^2 x} dx$

30. $\int \frac{\cot \theta}{\sec^2 \theta} d\theta$

31. $\int x \sec x \cos x \, dx$

32. $\int x \cos^2 x \sec x \, dx$

33. $\int \sec 2x \cos 3x \, dx$

34. $\int \cos 5x \cos 7x \, dx$

35. $\int \sec 3x \sec 6x \, dx$

36. $\int \sec 4x \cos x \, dx$