Integrals

Moderate

Tan, Cot, Sec

1. $\int \sec^3(x)\cos(x)\,dx$

2. $\int \dfrac{\sec(x)}{\cos(x)}\,dx$

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

4. $\int \sin\left(x + \dfrac{\pi}{2}\right)dx$

5. $\int \sin(\pi - x)\,dx$

6. $\int \dfrac{\cos^2(x)}{\sin^2(x)}$

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

8. $\int \cot(\theta)\sin(\theta)\,d\theta$

9. $\int \dfrac{\sec(x)\sin^2(x)}{1 + \sec(x)}\,dx$

10. $\int \sec^4(x)\cos^2(x)\,dx$

Answers

Integrals

Moderate

Tan, Cot, Sec

1. $\tan\left(x\right) + C$

2. $\tan\left(x\right) + C$

3. $\tan\left(x\right) + C$

4. $\sin\left(x\right) + C$

5. $-\cos\left(x\right) + C$

6. $-\cot\left(x\right) - x + C$

7. $\sin\left(x\right) + C$

8. $\sin\left(\theta\right) + C$

9. $x - \sin\left(x\right) + C$

10. $\tan\left(x\right) + C$