Sejam u e v funções variáveis de z e n constante.

Derivadas

1. $y = u^n \Rightarrow y' = nu^{n-1}u'$
2. $y = uv \Rightarrow y' = u'v + v'u$
3. $y = \frac{u}{v} \Rightarrow y' = \frac{u'v-v'u}{v^2}$
4. $y = a^u \Rightarrow y' = a^u(\ln a)u', (a > 0, a \neq 1)$
5. $y = e^u \Rightarrow y' = e^u u'$
6. $y = \log_a u \Rightarrow y' = \frac{u'}{u}\log_a e$
7. $y = \ln u \Rightarrow y' = \frac{1}{u}u'$
8. $y = u^v \Rightarrow y' = vu^{v-1}u' + u^v(\ln u)v'$
9. $y = \sin u \Rightarrow y' = u' \cos u$
10. $y = \cos u \Rightarrow y' = -u' \sin u$
11. $y = \tan u \Rightarrow y' = u' \sec^2 u$
12. $y = \cot u \Rightarrow y' = -u' \csc^2 u$
13. $y = \sec u \Rightarrow y' = u' \sec u \cdot \tan u$
14. $y = \csc u \Rightarrow y' = -u' \csc u \cdot \cot u$
15. $y = \arcsin u \Rightarrow y' = \frac{u'}{\sqrt{1-u^2}}$
16. $y = \arccos u \Rightarrow y' = \frac{-u'}{\sqrt{1-u^2}}$
17. $y = \arctan u \Rightarrow y' = \frac{u'}{\sqrt{1+u^2}}$
18. $y = \text{arccot } u \Rightarrow y' = \frac{-u'}{\sqrt{1+u^2}}$
19. $y = \text{arcsec } u, |u| \geq 1 \Rightarrow y' = \frac{u'}{|u|\sqrt{u^2-1}}, |u| > 1$
20. $y = \text{arccsc } u, |u| \geq 1 \Rightarrow y' = \frac{-u'}{|u|\sqrt{u^2-1}}, |u| > 1$

Identidadade trigonométricas

1. $\sin^2 x + \cos^2 x = 1$
2. $1 + \tan^2 x = \sec^2 x$
3. $1 + \cot^2 x = \csc^2 x$
4. $\sin^2 x = \frac{1-\cos 2x}{2}$
5. $\cos^2 x = \frac{1+\cos 2x}{2}$
6. $\sin 2x = 2\sin x \cdot \cos x$
7. $2\sin x \cdot \cos y = \sin(x-y) + \sin(x+y)$
8. $2\sin x \cdot \sin y = \cos(x-y) - \cos(x+y)$
9. $\cos x \cdot \cos y = \cos(x-y) + \cos(x+1)$
10. $1 \pm \sin x = 1 \pm \cos(\frac{\pi}{2} - x)$

Integrais

1. $\int du = u + c$
2. $\int u^n du = \frac{u^{n+1}}{n+1} + c, n \neq -1$
3. $\int \frac{du}{u} = \ln|u| + c$
4. $\int a^u du = \frac{a^u}{\ln a} + c, a > 0, a \neq 1$
5. $\int e^u du = e^u + c$
6. $\int \sin u \cdot du = -\cos u + c$
7. $\int \cos u \cdot du = \sin u + c$
8. $\int \tan u \cdot du = \ln|\sec u| + c$
9. $\int \cot u \cdot du = \ln|\sin u| + c$
10. $\int \sec u \cdot du = \ln|\sec u + \tan u| + c$
11. $\int \csc u \cdot du = \ln|\csc u - \cot u| + c$
12. $\int \sec u \cdot \tan u \cdot du = \sec u + c$
13. $\int \csc u \cdot \cot u \cdot du = -\csc u + c$
14. $\int \sec^2 u \cdot du = \tan u + c$
15. $\int \csc^2 u \cdot du = -\cot u + c$
16. $\int \frac{du}{u^2+a^2} = \frac{1}{a}\arctan\frac{u}{a} + c$
17. $\int \frac{du}{u^2-a^2} = \frac{1}{2a}\ln|\frac{u-a}{u+a}| + c, u^2 > a^2$
18. $\int \frac{du}{\sqrt{u^2+a^2}} = \ln|u + \sqrt{u^2+a^2}| + c$
19. $\int \frac{du}{\sqrt{u^2-a^2}} = \arcsin\frac{u}{a} + c, u^2 < a^2$
20. $\int \frac{du}{\sqrt{a^2-u^2}} = \arcsin\frac{u}{a} + c, u^2 < a^2$
21. $\int \frac{du}{u\sqrt{a^2-u^2}} = \frac{1}{a}\text{ arcsec }|\frac{u}{a}| + c$

Fórmulas de recorrência

1. $\int \sin^n au \cdot du = -\frac{\sin^{n-1} au \cdot \cos au}{an} + (\frac{n-1}{n}) \cdot \int \sin^{n-2} au \cdot du$
2. $\int \cos^n au \cdot du = \frac{\sin au \cos^{n-1} au}{an} + \frac{n-1}{b} \cdot \int \cos^{n-2} au \cdot du$
3. $\int \tan^n au \cdot du = \frac{\tan^{n-1} au}{a(n-1)} - \int \tan^{n-2} au \cdot du$
4. $\int \cot^n au \cdot du = -\frac{\cot^{n-1} au}{a(n-1)} - \int \cot^{n-2} au \cdot du$
5. $\int \sec^n au \cdot du = \frac{\sec^{n-2} au \tan au}{a(n-1)} + \frac{n-2}{n-1}\int \sec^{n-2} au \cdot du$
6. $\int \csc^n au \cdot du = -\frac{\csc^{n-2} au \cot au}{a(n-1)} + \frac{n-2}{n-1}\int \csc^{n-2} au \cdot du$