Algumas Séries de Maclaurin (Taylor).

A. $e^x = 1 + \dfrac{x}{1!} + \dfrac{x^2}{2!} + \dfrac{x^3}{3!} + \dfrac{x^4}{4!} + ... + \dfrac{x^n}{n!} + ... = \sum_{k=0}^{\infty} \dfrac{x^k}{k!}$, sendo $x \in R$

B. $\ln(1+x) = x - \dfrac{x^2}{2} + \dfrac{x^3}{3} - \dfrac{x^4}{4} + ... + (-1)^n \dfrac{x^{n+1}}{n+1} + ... = \sum_{k=0}^{\infty} (-1)^k \dfrac{x^{k+1}}{k+1}$, sendo $x \in R$

C. $\arctan x = x - \dfrac{x^3}{3} + \dfrac{x^5}{5} - \dfrac{x^7}{7} + ... + (-1)^n \dfrac{x^{2n+1}}{2n+1} + ... = \sum_{k=0}^{\infty} (-1)^k \dfrac{x^{2k+1}}{2k+1}$, sendo $x \in R$

D. $\sin x = x - \dfrac{x^3}{3!} + \dfrac{x^5}{5!} + ... + (-1)^{n+1} \dfrac{x^{2n+1}}{(2n+1)!} + ... = \sum_{k=0}^{\infty} (-1)^{k+1} \dfrac{x^{2k+1}}{(2k+1)!}$, sendo $x \in R$

E. $\cos x = 1 - \dfrac{x^2}{2!} + \dfrac{x^4}{4!} - \dfrac{x^6}{6!} ..... + (-1)^{n+1} \dfrac{x^{2n}}{(2n)!} + ... = \sum_{k=0}^{\infty} (-1)^{k+1} \dfrac{x^{2k}}{(2k)!}$, sendo $x \in R$

F. $\sinh x = x + \dfrac{x^3}{3!} + \dfrac{x^5}{5!} + ... + \dfrac{x^{2n+1}}{(2n+1)!} + ... = \sum_{k=0}^{\infty} \dfrac{x^{2k+1}}{(2k+1)!}$, sendo $x \in R$

G. $\cosh x = 1 + \dfrac{x^2}{2!} + \dfrac{x^4}{4!} + \dfrac{x^6}{6!} ..... + \dfrac{x^{2n}}{(2n)!} + ... = \sum_{k=0}^{\infty} \dfrac{x^{2k}}{(2k)!}$, sendo $x \in R$

H. $\dfrac{1}{1-x} = 1 + x + x^2 + x^3 + x^4 + ... + x^n + ... = \sum_{k=0}^{\infty} x^k$, sendo $|x| < 1$

I. $\dfrac{1}{1+x} = 1 - x + x^2 - x^3 + x^4 - ..... + (-1)^n x^n + ... = \sum_{k=0}^{\infty} (-1)^k x^k$, sendo $|x| < 1$

J. $\dfrac{1}{(1-x)^2} = 1 + 2x + 3x^2 + 4x^3 + 5x^4 + ... + nx^{n-1} + ... = \sum_{k=0}^{\infty} (k+1) x^k$, sendo $|x| < 1$

K. $\dfrac{1}{(1+x)^2} = -1 + 2x - 3x^2 + 4x^3 - 5x^4 + ... + (-1)^{n+1} (n+1) x^n + ... = \sum_{k=0}^{\infty} (-1)^{k+1} (k+1) x^k$, sendo $|x| < 1$