

| Function        | Series  | Sum  | Derived From     |
|-----------------|---|--|------------------|
| $\sin x$        | $x - \frac{x^3}{3!} + \frac{x^5}{5!} + \dots$     | $\sum_{k=0} \frac{(-1)^k x^{2k+1}}{(2k+1)!}$ | raw              |
| $\cos x$        | $1 - \frac{x^2}{2!} + \frac{x^4}{4!} + \dots$     | $\sum_{k=0} \frac{(-1)^k x^{2k}}{(2k)!}$     | raw              |
| $e^x$           | $1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$ | $\sum_{k=0} \frac{x^k}{k!}$                  | raw              |
| $\frac{1}{1-x}$ | $1 + x + x^2 + x^3 + \dots$                       | $\sum_{k=0} (-x)^k$                          | geometric series |
| $\ln x$         | $(x-1) - \frac{(x-1)^2}{2!} + \frac{(x-1)^3}{3!}$ |  |                  |