

[2.6] CAS uses common convention for integral of x^n

In general,

$$\int x^n dx = \frac{x^{n+1}}{n+1}$$

is true, except for $n = -1$, where the result is undefined. Actually,

$$\int x^{-1} dx = \ln(x)$$

which is also correctly returned by the CAS. This is not a concern if you are doing problems by hand, but if you are doing this type of symbolic integration in a program, it is worth checking for this condition and trapping it as an error, or using the correct solution. Both Mathematica and MathCad return the general result, too.

(Credit to Bhuvanesh Bhatt)