COUNT(*) and SUM(1)

Some data analysts use the expression SUM(1) instead of COUNT(*). These two aggregate expressions do the same thing: they count the number of rows in a table.

This is because when you use a *scalar argument* (in this case, 1) to an aggregate function (in this case, SUM), then the aggregate function aggregates that same value over all the rows.

For example, here is the toys table in the toy database:

id	name	price	maker_id
21	Lite-Brite	14.47	105
22	Mr. Potato Head	11.50	105
23	Etch A Sketch	29.99	106

Imagine executing SELECT SUM(price) FROM toys; You can think of this as running through the rows in the table, and for each row, add the value in price to a running total. So you would get 14.47, then 14.47 + 11.50, then 14.47 + 11.50 + 29.99.

If instead you execute SELECT SUM(1) FROM toys; the result would be like substituting the value 1 for each of those prices. Instead of 14.47 + 11.50 + 29.99, you would have 1 + 1 + 1. That is, each row contributes 1 to the sum. This is the same as counting the rows.