

The Definition of $\int_a^b f(x) dx$

A definite integral's kind of a sum.

You add up rectangles—The function they're from,
it tells you the height, and the width you can get
by cutting the interval up on a set
that's called a partition (it starts with the a
and paces off spaces 'til b comes your way).

The product of height and of width is the space
the rectangle fills as it sits in its place.

The areas found by this multiplication
are added together without innovation.

The answer you get is a sum named for Riemann

(not “rhyme on” but something that sounds more like “cream on”).

Now here is the thought that Bernhard called a winner:

slice rectangles thinner and thinner and thinner.

Now look at the sums, and the limit provides
 f 's integral from a to b , none besides.