

## Improper Integrals: A Poem

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An integral with unbounded intervals of integration  
They're improper integrals, here's the definition:  
We can find the area of a given region "R"  
By evaluating the limit as it goes infinitely far

First things first, make the lower bound "a,"  
The upper bound is "b," trust me, it's the easiest way!  
Whichever is infinite, you sub in the missing letter  
"As a or b goes to infinity," DO THIS- it'll make your grade better

Since infinity is not a real number, it cannot be a bound  
Take it off the integral, leave it on the ground  
Proceed as normal, take the integral first  
I don't have a rhyme, continue to the next verse

Take the limit of your solution as *a or b approaches* infinity  
This is your final step, it should be fairly easy  
Convergent, it is, if the limit exists  
Otherwise, its divergent as the definition insists!