HW 1

library(ggplot2)

Task: find the area of a figure bounded by curves given by the equation:

$$y=2|x|-\pi, x\in [-\frac{pi}{2},\frac{pi}{2}]$$

$$y=|sin(2x)|, x\in [-\frac{pi}{2},\frac{pi}{2}]$$

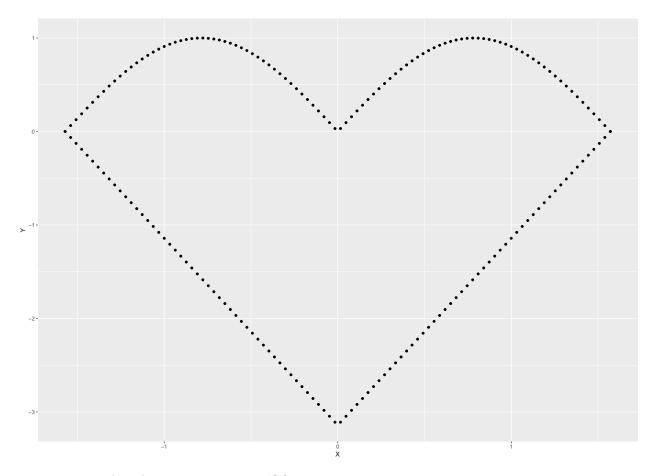
$$y=|sin(2x)|, x\in [-\frac{pi}{2},\frac{pi}{2}]$$

using the Monte Carlo method.

You can read about this method in any resource.

For examplle: https://www.mathonweb.com/entrtain/monte/t_monte.htm

This is a graphical representation of the equations:



To generate random dots you may use runif function,

Use help function "?runif" to understand how it works.