

Due Tuesday April 14th, 2015 at 8 am

Monte Carlo example: Estimating the area of four different regions using NetLogo turtles. Each turtle located to a random x (its xcor or xcoordinate) and a random y (its ycor or ycoordinate).

CS 1025 Computational Modeling and Simulation Fall 2011

Computational Modeling and Simulation - December 4th, 2011

Center of left circle -28 0
Center of right circle 28 0

Width of turtle world 89 units
Height of turtle world 33 units
 $44 + 0 + 44 = 89$
 $16 + 0 + 16 = 33$

AREA (count patches):
2937

count plants / count turtles: 0.12
count plants: 12

count stars / count turtles: 0.36
count stars: 36

count cows / count turtles: 0.26
count cows: 26

count cars / count turtles: 0.26
count cars: 26

count turtles: 100

Area of the Cows region is:
Area of the Stars region is:
Area of the plants regions is:

powered by [NetLogo](#)
view/download model file: [December4th.nlogo](#)

WHAT IS IT?

1. What is the estimated area of the left circle?
2. What is the estimated area of the right circle?
3. What is the estimated area between the circles?
4. What is the estimated area to the left of the left circle?
5. What is the estimated area to the right of the right circle?
6. What do all 5 of these areas add up to?