

# PyRInText test01

## 1. Python example

<Extended Euclidean Algorithm >

Given positive integers  $a$  and  $b$ ,

find the integer solution  $(x, y)$  to  $ax + by = \gcd(a, b)$ ,

where  $\gcd(a, b)$  is the Greatest Common Divisor of  $a$  and  $b$ .

(a)  $a = 312$ ,  $b = 534$

solution:  $g(a, b) = 6$ ,  $x = 12$ ,  $y = -7$

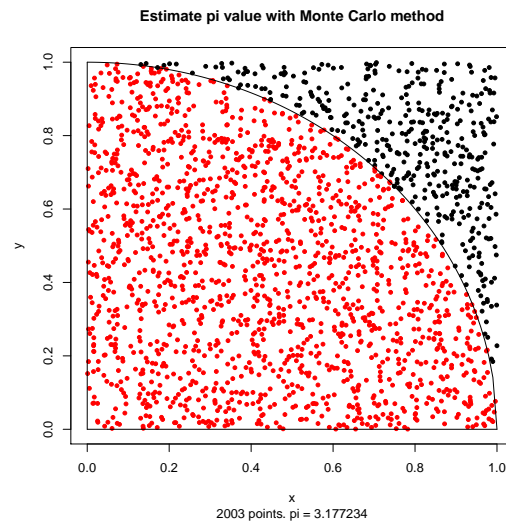
$$312 \times (12) + 534 \times (-7) = 6$$

(b)  $a = 315$ ,  $b = 540$

## 2. R example

(a) Estimate pi value with Monte Carlo method

estimation of pi value with 2003 points = 3.177234



(b) IRIS Table using kable

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
41	5.0	3.5	1.3	0.3	setosa
42	4.5	2.3	1.3	0.3	setosa
43	4.4	3.2	1.3	0.2	setosa
44	5.0	3.5	1.6	0.6	setosa
45	5.1	3.8	1.9	0.4	setosa
46	4.8	3.0	1.4	0.3	setosa
47	5.1	3.8	1.6	0.2	setosa
48	4.6	3.2	1.4	0.2	setosa
49	5.3	3.7	1.5	0.2	setosa
50	5.0	3.3	1.4	0.2	setosa
51	7.0	3.2	4.7	1.4	versicolor
52	6.4	3.2	4.5	1.5	versicolor
53	6.9	3.1	4.9	1.5	versicolor
54	5.5	2.3	4.0	1.3	versicolor
55	6.5	2.8	4.6	1.5	versicolor
56	5.7	2.8	4.5	1.3	versicolor
57	6.3	3.3	4.7	1.6	versicolor
58	4.9	2.4	3.3	1.0	versicolor
59	6.6	2.9	4.6	1.3	versicolor
60	5.2	2.7	3.9	1.4	versicolor