

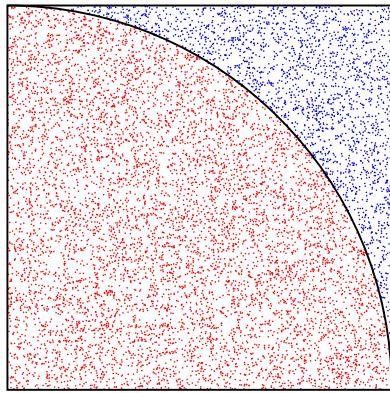
Calculation of π by Monte-Carlo algorithm

$n = 10000$

```
:= random(fill(vectorhp(n); 1)) = random(fill(vectorhp(10000); 1)) = [0.5791535 0.08745665 0.252211  
0.1889183 0.1867459 0.2868368 0.8409331 0.3903056 0.5723298 0.03150379 0.04439713 0.4903238  
0.665422 0.04287725 0.8629829 0.744501 0.528641 0.5675106 0.007618835 0.2270677 ... 0.5115461]  
:= random(fill(Vectorhp(n); 1)) = random(fill(Vectorhp(10000); 1)) = [0.9327378 0.3070463 0.6954195  
0.750647 0.7304605 0.3553486 0.5996055 0.1005144 0.03648799 0.2504001 0.1240114 0.01181443  
0.3993968 0.8099657 0.9146628 0.1891225 0.1888039 0.8714648 0.3258113 0.1461647 ... 0.2761343]  
:= sqrt(x2 + y2) = [1.097916 0.3192586 0.7397423 0.774055 0.753954 0.4566705 1.032809 0.4030404  
0.5734918 0.2523741 0.1317192 0.4904661 0.7760827 0.8110998 1.257516 0.7681465 0.561345 1.039961  
0.3259004 0.2700442 ... 0.5813171]
```

$n_{in} = \text{count}(\text{floor}(t); 0; 1) = 7857$

$\text{PI} = 4 * n_{in} / n$



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