

/\* Program to compute Pi using Monte Carlo methods \*/

#include <stdio.h>

#include <string.h>

#include <pthread.h>

#include <math.h>

#include <stdlib.h>

int i = 0;

int amtWanted = 0;

int totalPts = 0;

void \*count(void \*X)

{

/\* initialize random numbers \*/

for (i=0; i < amtWanted; i++)

{

double X = (double)rand() / RAND\_MAX;

double Y = (double)rand() / RAND\_MAX;

if (((X \* X) + (Y \* Y)) <= 1) //Rumus perhitungan phi

{

totalPts++;

}

}

return NULL;

}

int main()

{

printf("\n\nWelcome\n\n");

srand(time(NULL));

pthread\_t thread;

//proses pemanggilan thread

do

{

printf("Masukkan Angka \n");

scanf("%d", &amtWanted);

}while (amtWanted <= 0);

pthread\_create(&thread, NULL, &count, NULL);

pthread\_join(thread, NULL);

double points = 4.0 \* totalPts;

double pi = points / amtWanted;

printf("Phi yang di dapat (%d) is: %f \n", amtWanted, pi); //hasil dari phi

return 0;

}