Ananda Mawareneya Putra

10117157

IF-9

MOSI

Tugas RNG

Metode Linear Congruential Generator

$Z_i = (a \cdot Z_{i-1} + (c)) \bmod m$

$a < m$ dan $c < m$

* Membangkitkan 15 bilangan acak dengan ketentuan.

$a = 4$ $c = 7$ $m = 10$ dan $Z_0 = 10117157$

i	Z_{i-1}	Z_i (Random Integer Number	U_i (Uniform R.N)
1	10117157	$Z_1 = (4.10117157+7) \bmod 10 = 7$	$U_1 = 7/10 = 0,700$
2	7	$Z_2 = (4.7+7) \bmod 10 = 5$	$U_2 = 5/10 = 0,500$
3	5	$Z_3 = (4.5+7) \bmod 10 = 7$	$U_3 = 7/10 = 0,700$
4.	7	$Z_4 = (4.7+7) \bmod 10 = 5$	$U_4 = 5/10 = 0,500$
5.	5	$Z_5 = (4.5+7) \bmod 10 = 7$	$U_5 = 7/10 = 0,700$
6.	7	$Z_6 = (4.7+7) \bmod 10 = 5$	$U_6 = 5/10 = 0,500$
7	5	$Z_7 = (4.5+7) \bmod 10 = 7$	$U_7 = 7/10 = 0,700$
8	7	$Z_8 = (4.7+7) \bmod 10 = 5$	$U_8 = 5/10 = 0,500$
9	5	$Z_9 = (4.5+7) \bmod 10 = 7$	$U_9 = 7/10 = 0,700$
10	7	$Z_{10} = (4.7+7) \bmod 10 = 5$	$U_{10} = 5/10 = 0,500$
11	5	$Z_{11} = (4.5+7) \bmod 10 = 7$	$U_{11} = 7/10 = 0,700$
12	7	$Z_{12} = (4.7+7) \bmod 10 = 5$	$U_{12} = 5/10 = 0,500$
13	5	$Z_{13} = (4.5+7) \bmod 10 = 7$	$U_{13} = 7/10 = 0,700$
14	7	$Z_{14} = (4.7+7) \bmod 10 = 5$	$U_{14} = 5/10 = 0,500$
15	5	$Z_{15} = (4.5+7) \bmod 10 = 7$	$U_{15} = 7/10 = 0,700$

15 bil. acak yang dibangkitkan adalah

Bilangan ke-	Bilangan Acak
1	0,700
2	0,500
3	0,700
4	0,500
5	0,700
6	0,500
7	0,700
8	0,500
9	0,700
10	0,500
11	0,700
12	0,500
13	0,700
14	0,500
15	0,700

Terjadi pengulangan secara periodik