```
import matplotlib.pyplot as plt

# LCG parameters
a = 1664525
c = 1013904223
m = 2**32
seed = 123456789  # initial seed

def my_random():
    global seed
    seed = (a * seed + c) % m
    return seed % 100  # random number in [0, 99]

# Run 10 million times
N = 10_000_000
counts = [0] * 100

for _ in range(N):
    num = my_random()
    counts[num] += 1

# Calculate probabilities
probabilities = [count / N for count in counts]

# Plot distribution
plt.bar(range(100), probabilities)
plt.xlabel("Number (0–99)")
plt.ylabel("Probability")
plt.title("Random Number Distribution (Custom LCG)")
plt.show()

# Display first 10 probabilities
for i in range(10):
    print(f"{i}: {probabilities[i]:.5f}")
```

After running the RNG 10 million times, the results showed that each number occurred approximately **1%** of the time, which is expected for uniform randomness.