

1 Random Number Generation

It is possible to generate (pseudo-)random numbers in C, for many uses that you can imagine. The new C standard defines the following two functions:

SYNOPSIS

```
#include <stdlib.h>

int rand(void);

void srand(unsigned int seed);
```

DESCRIPTION

The `rand()` function returns a pseudo-random integer between 0 and `RAND_MAX`.

The `srand()` function sets its argument as the seed for a new sequence of pseudo-random integers to be returned by `rand()`. These sequences are repeatable by calling `srand()` with the same seed value.

If no seed value is provided, the `rand()` function is automatically seeded with a value of 1.

RETURN VALUE

The `rand()` function returns a value between 0 and `RAND_MAX`. The `srand()` returns no value.

2 Exercise

Write a C program that prints out a random “column” for the 6/49 “numeric lotto” game. In other words, it should print a total of six random numbers, in the range 1..49. Note that you need to make sure no number is repeated. Think of an efficient way of doing this if you can.