PROGRAM

Testing the Pseudo-Random Sequence Generation Functions

The following program displays the first five values returned by the `rand` function. then allows the user to choose a new seed value. The process repeats until the user enters zero as the seed.

trand.c

```
/* Tests the pseudo-random sequence generation functions */

#include <stdio.h>
#include <stdlib.h>

int main(void)
{
  int i, seed;

  printf("This program displays the first five values of "
         "rand.\n");

  for (;;) {
    for (i = 0; i < 5; i++)
      printf("%d ", rand());
    printf("\n\n");
    printf("Enter new seed value (0 to terminate): ");
    scanf("%d", &seed);
    if (seed == 0)
      break;
    srand(seed);
  }

  return 0;
}
```

Here's how a session with the program might look:

```
This program displays the first five values of rand.
1804289383 846930886 1681692777 1714636915 1957747793

Enter new seed value (0 to terminate): 100
677741240 611911301 516687479 1039653884 807009856

Enter new seed value (0 to terminate): 1
1804289383 846930886 1681692777 1714636915 1957747793

Enter new seed value (0 to terminate): 0
```

There are many ways to write the `rand` function, so there's no guarantee that every version of `rand` will generate the numbers shown here. Note that choosing 1 as the seed gives the same sequence of numbers as not specifying the seed at all.

Communication with the Environment

```
void abort(void);
int atexit(void (*func)(void));
```