Quiz #11

1. Create a script that will search for a certain number in a variable-sized array of values. Use the following array and search for the number 23 for test purposes. The output should state 'array(7) has the value 23'. Array: `[2 4 5 7 9 14 23 1]` `** Do not use built in functions **`

2. The factorial function is defined for any integer >=0 as
$$n! = \begin{cases} 1 & n = 0 \\ n \times (n-1) \times (n-2) \times \ldots \times 2 \times 1 & n > 0 \end{cases}$$
Write a script, using a for loop, to calculate the factorial for a positive value of n.

For example, $5! = 1 \times 2 \times 3 \times 4 \times 5 = 120$

The user should input the value of n and a formatted print statement should be used. Running the code should produce the following:

```
Enter the value of n: 5

5! = 120
```