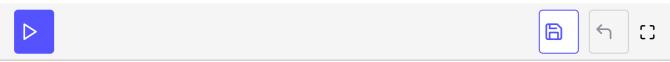
Solution Review: The Factorial of a Number (Loops)

This lesson explains the solution for the factorial of a number exercise.

we'll cover the following ^ Solution Explanation

Solution

```
let fact = (n: int) => {
  /* Check if n is 0 or 1 */
  if (n == 0 || n == 1) {
   1;
  }
  else {
   let i = ref(n);
    let prod = ref(1); /* Give the product a default value of 1 */
    while (i^* > 1) {
      prod := prod^ * i^; /* Multiple prod with i in each iteration */
      i := i^ - 1; /* Decrement i until it reaches 1 */
    };
    prod^;
  };
};
Js.log(fact(3));
```



Explanation

Initially, we handle the simplest values for n, 0 and 1. In both cases, the function should return 1.

Now comes the real crux of the code. We use a while loop to solve this problem.

The i wrapper begins from n and moves down through all integers until 1.

This allows us to multiply each value of i with the total product called prod.

The while loop runs as long as in is greater than 1, hence, all the positive integers we need for the factorial are covered.