CSSE 220 – Object-Oriented Software Development
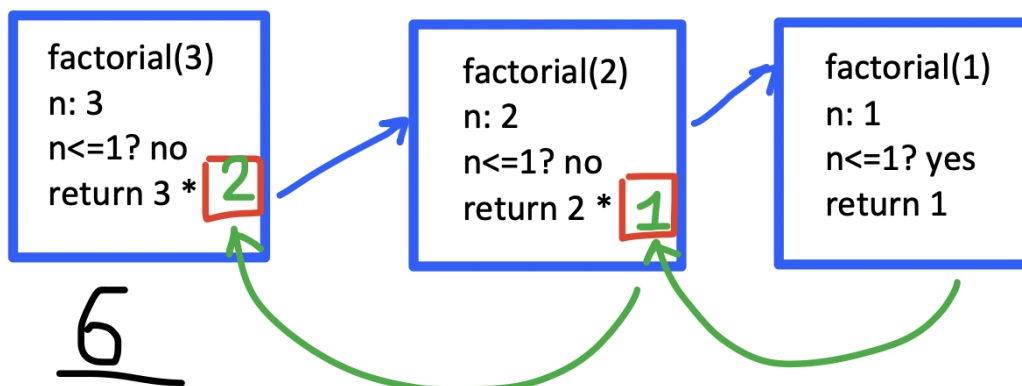### Rose-Hulman Institute of Technology

Review Practice Recursion Solution

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1. Draw recursion traces for **factorial(3)** and identify the final result:

```
1  /**
2   * Returns factorial of n
3   */
4
5  public int factorial(int n) {
6      if (n <= 1) {
7          return 1;
8      }
9      return n * factorial(n - 1);
10 }
11
```

2. Draw recursion traces for **powerOfTwo(2)** and identify the final result:

```
1  /**
2   * Returns 2^n
3   */
4  public int powerOfTwo(int n) {
5      if (n == 0) {
6          return 1;
7      }
8      return 2 * powerOfTwo(n - 1);
9  }
10
```