Recursive Factorial Demo

```
pubic class Factorial {
   public static int fact(int n) {
      if (n == 0) return 1;
      else return n * fact(n-1);
   }

   public static void main(String[] args) {
      System.out.println(fact(3));
   }
}
```

n = 3

environment

fact(3)

```
static int fact(int n) {
   if (n == 0) return 1;
   else return n * fact(n-1);
}
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fact(3)

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static int fact(int n) {
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n = 2

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fact(2)

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static int fact(int n) {
   if (n == 0) return 1;
   else return n * fact(n-1);
}
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fact(3)

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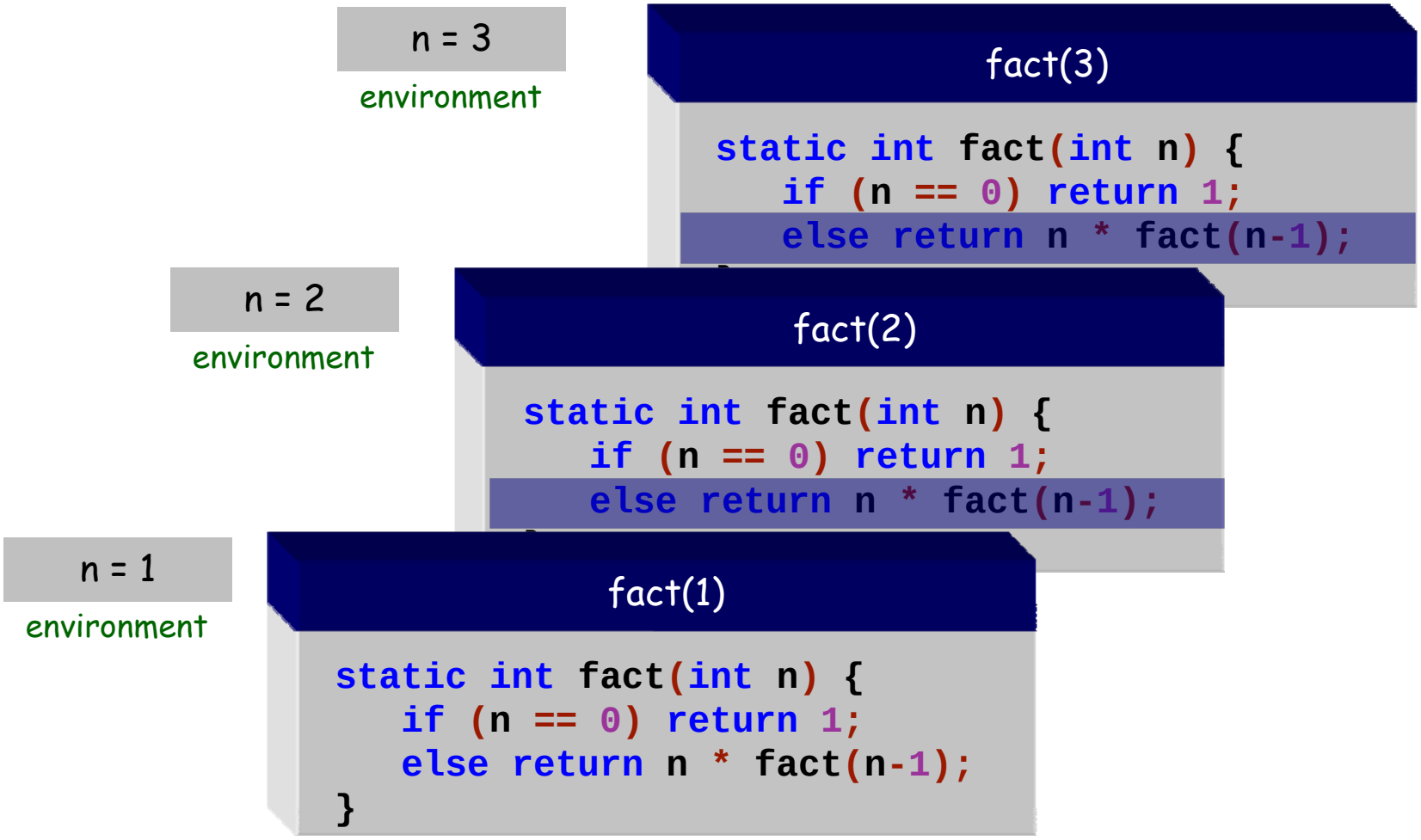
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n = 2
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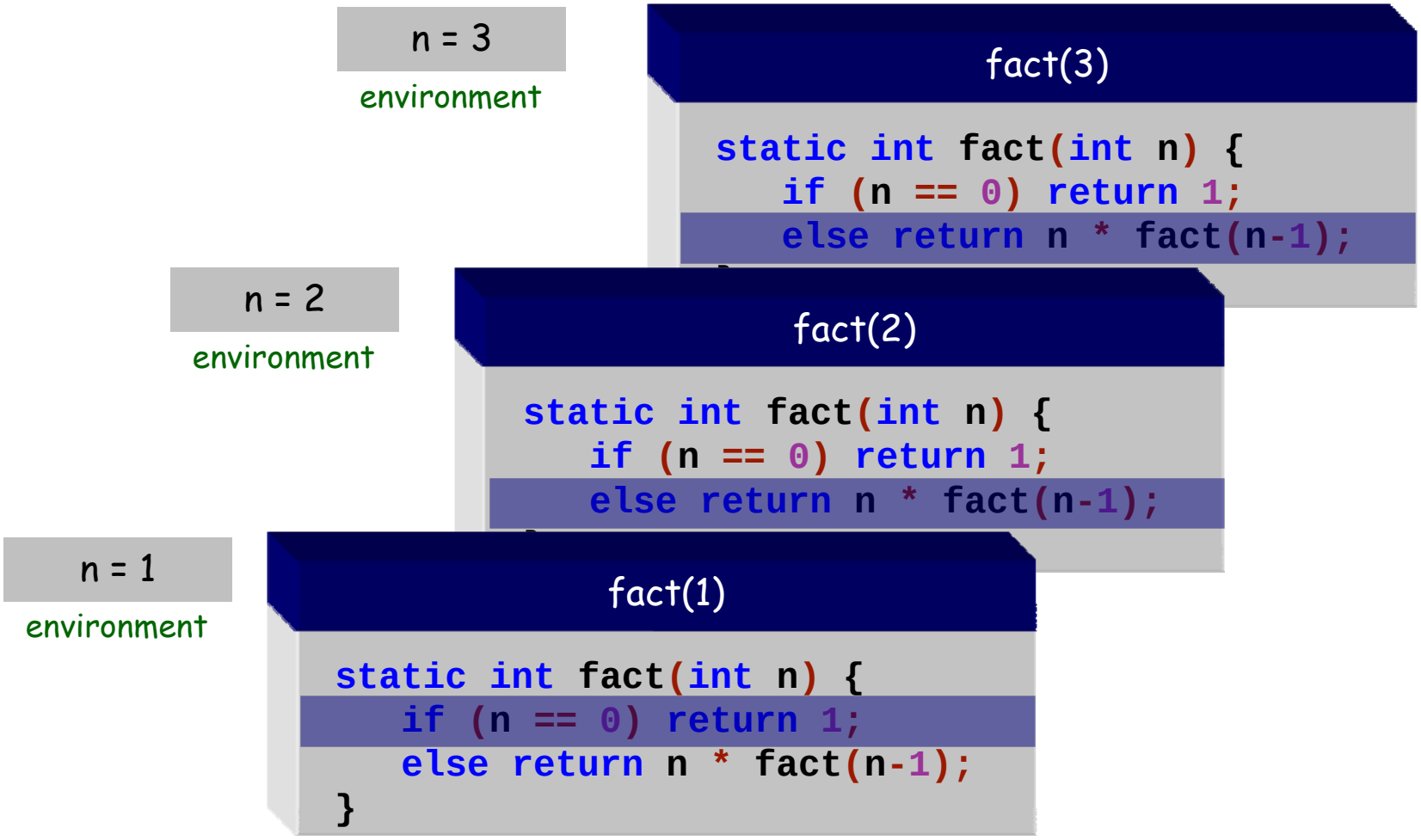
n = 1
environment
fact(1)
static int fact(int n) {
if (n == 0) return 1;
else return n * fact(n-1);
}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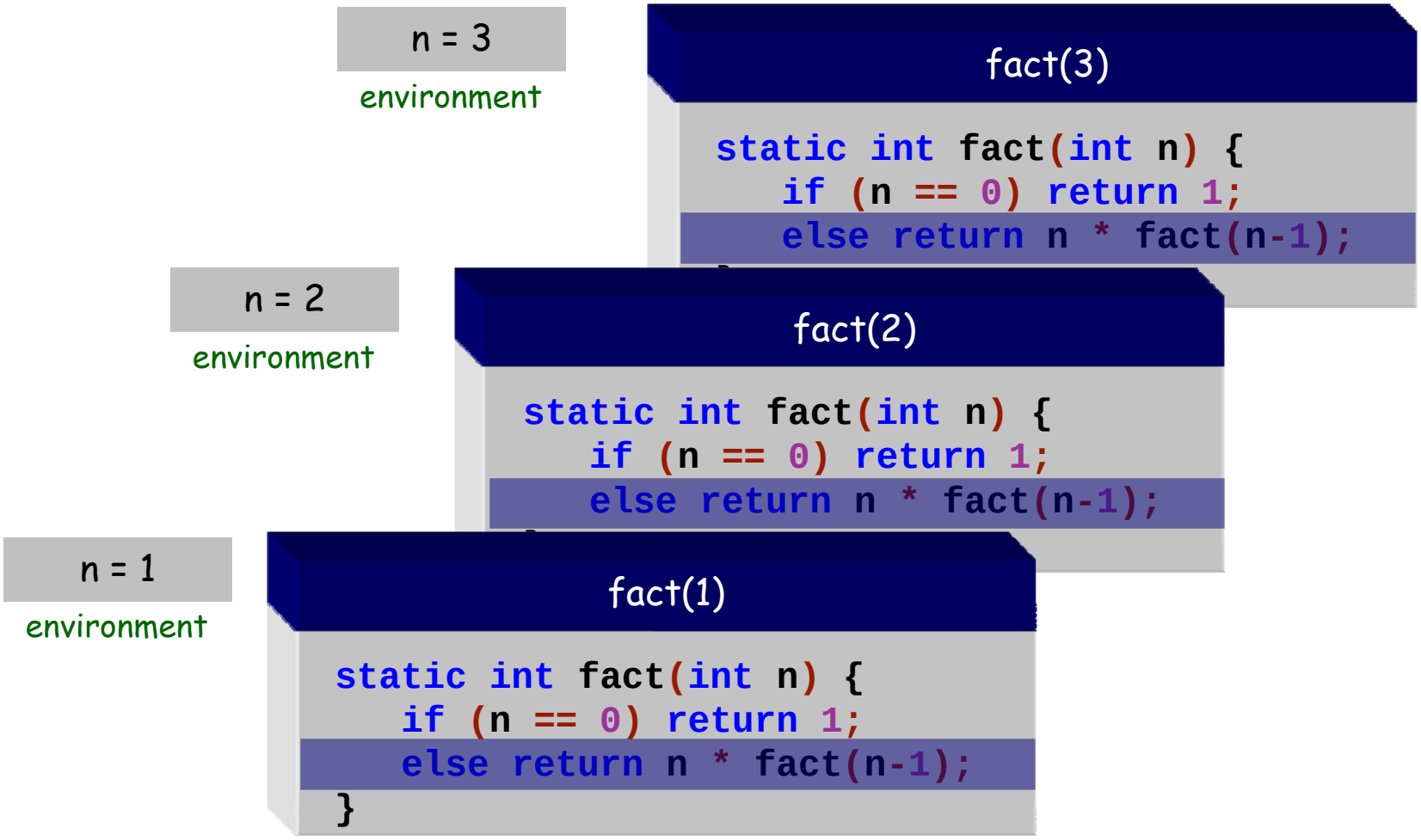
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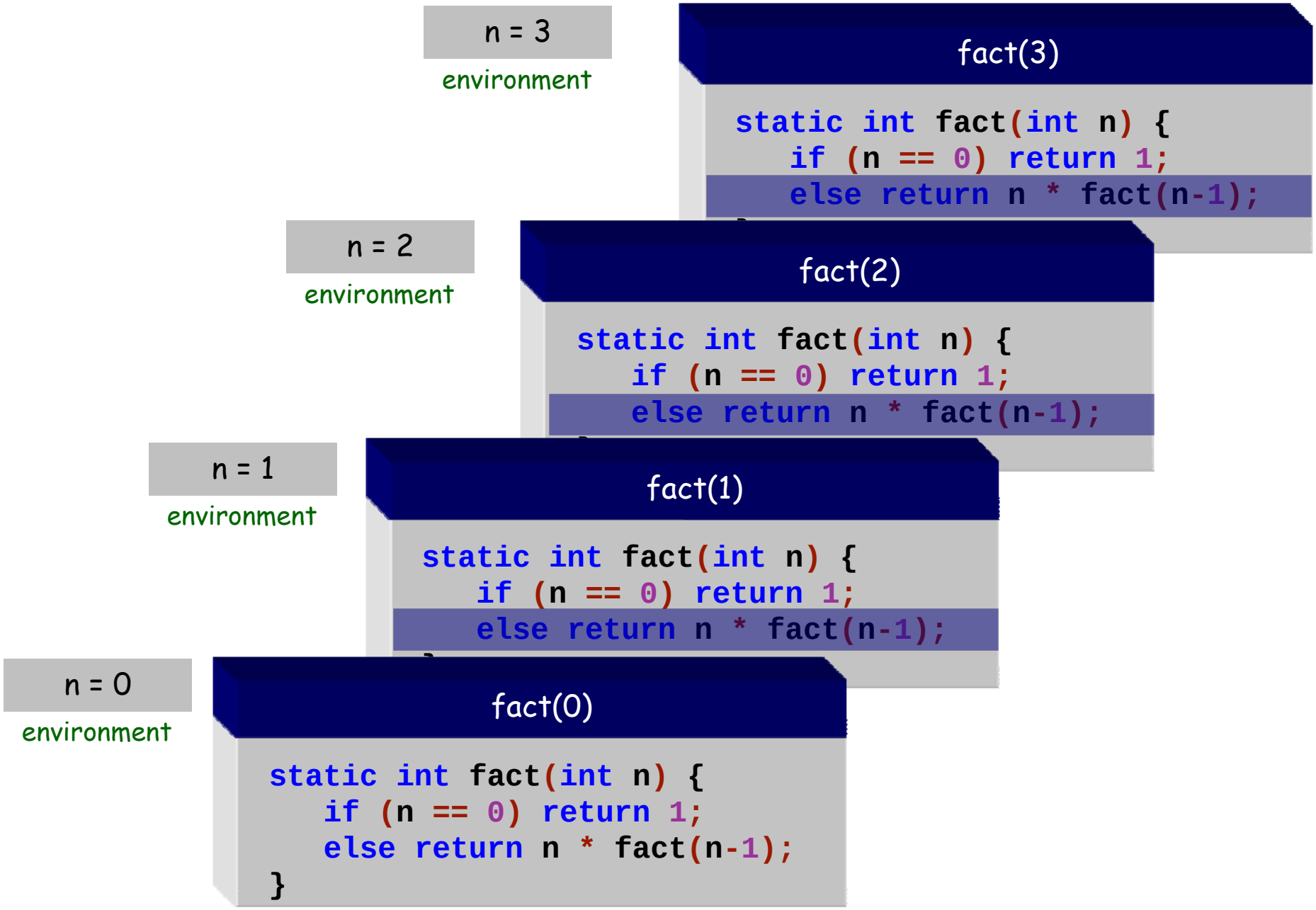
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n = 2
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fact(2)
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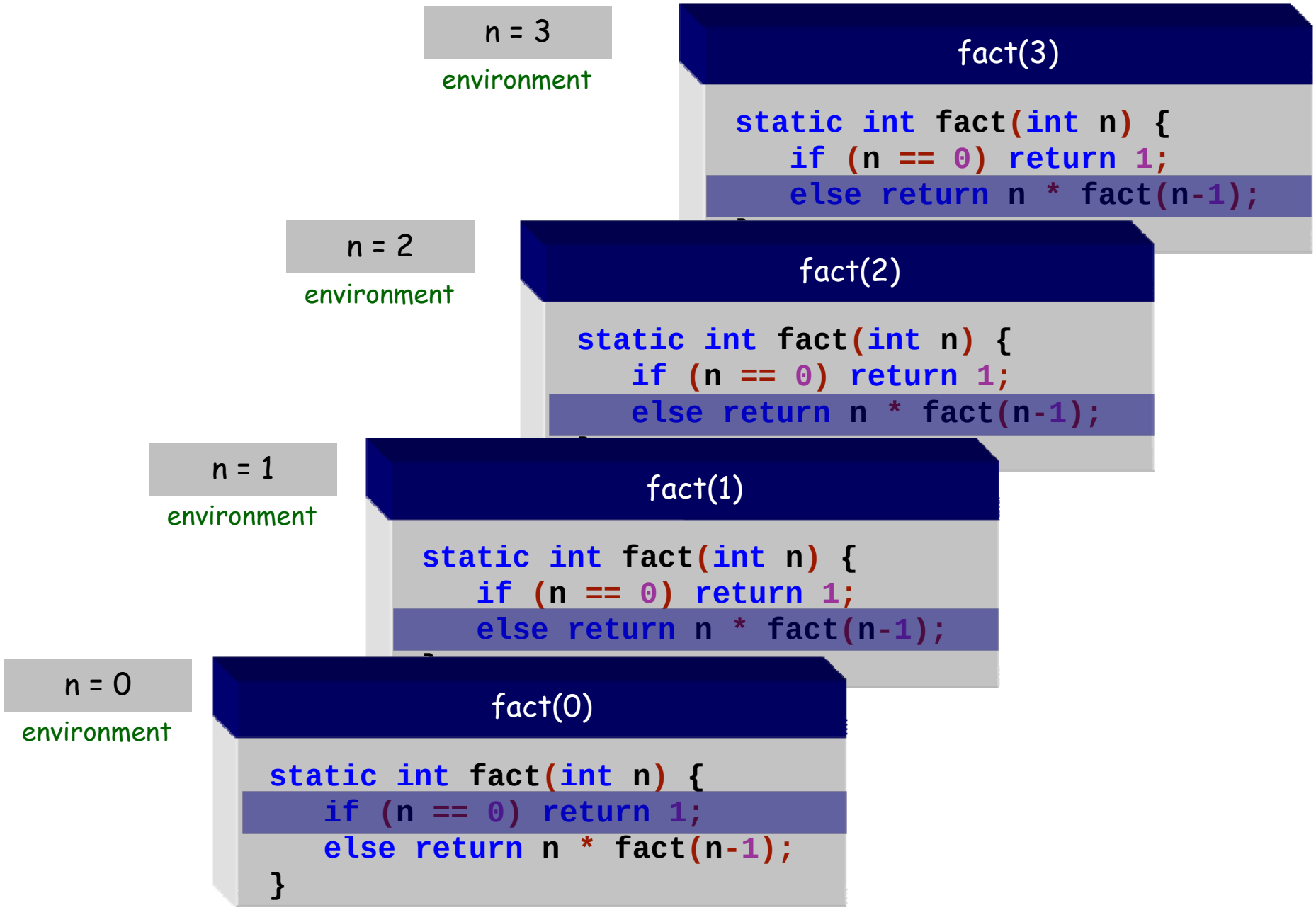
n = 1
environment
fact(1)
static int fact(int n) {
if (n == 0) return 1;
else return n * fact(n-1);
n = 0
environment
fact(0)
static int fact(int n) {
if (n == 0) return 1;
else return n * fact(n-1);
}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n = 1
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fact(1)
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if (n == 0) return 1;
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n = 0
environment
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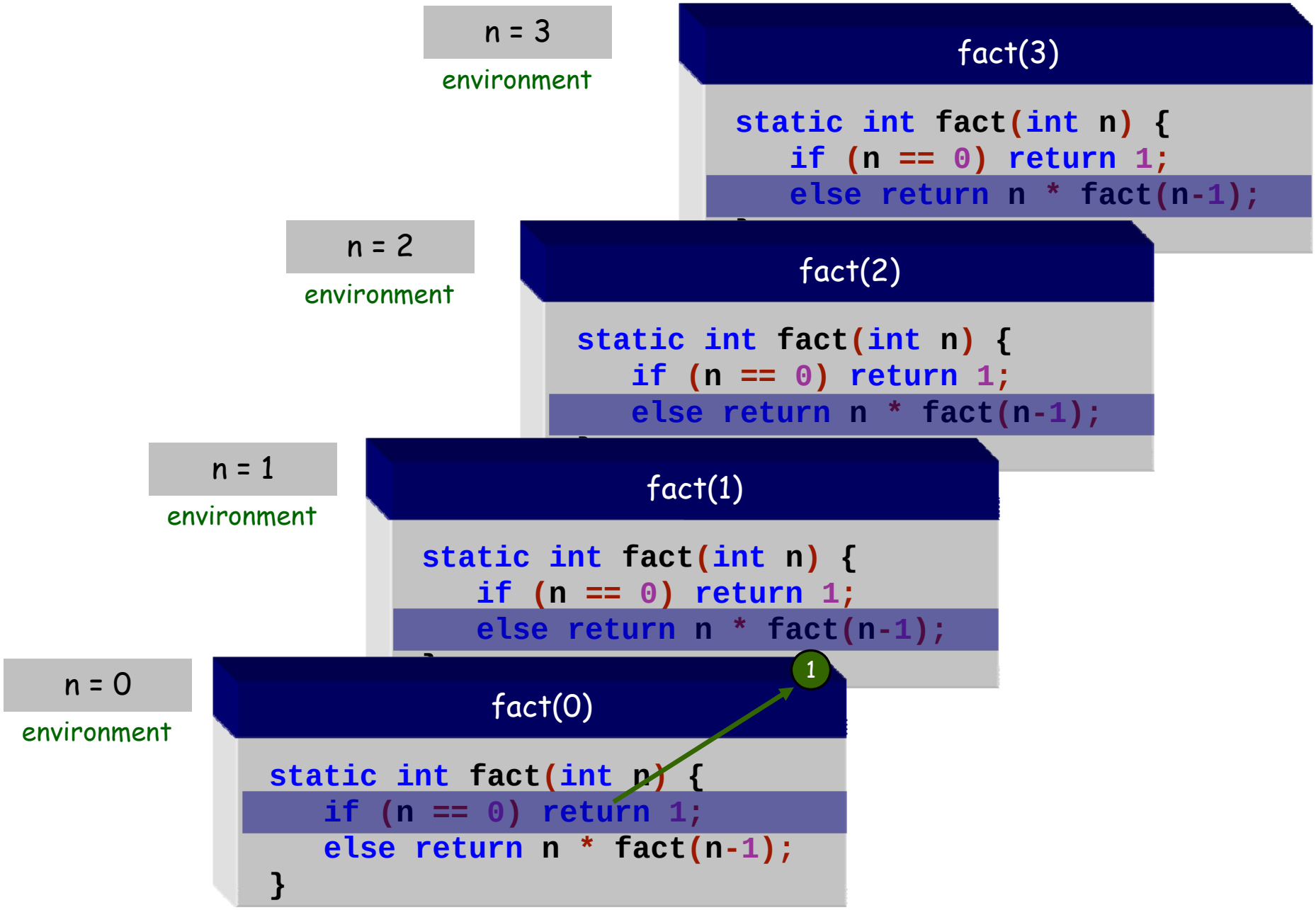
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fact(2)
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n = 1
environment
fact(1)
static int fact(int n) {
if (n == 0) return 1;
else return n * fact(n-1);
n = 0
environment
fact(0)
1
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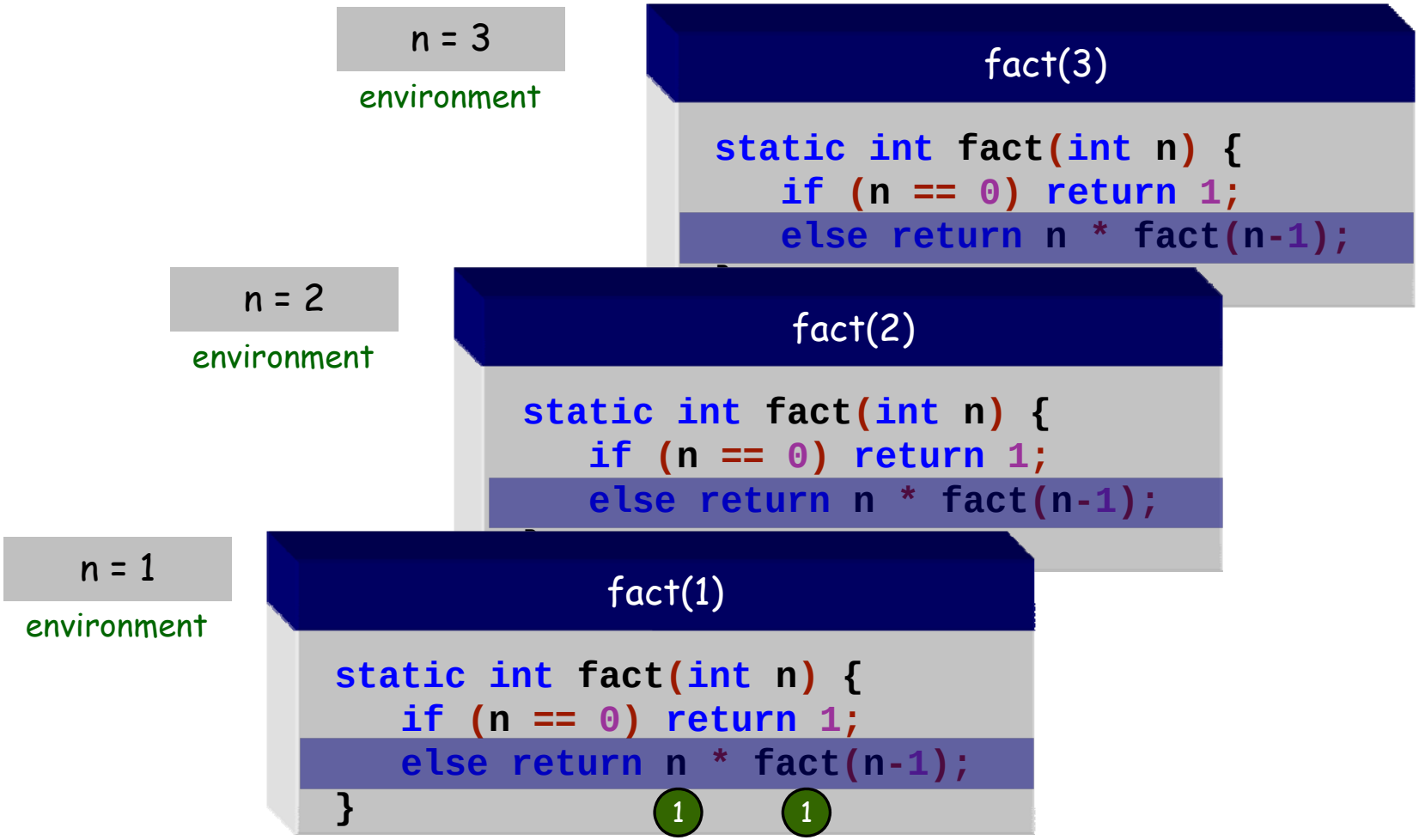
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n = 1
environment
fact(1)
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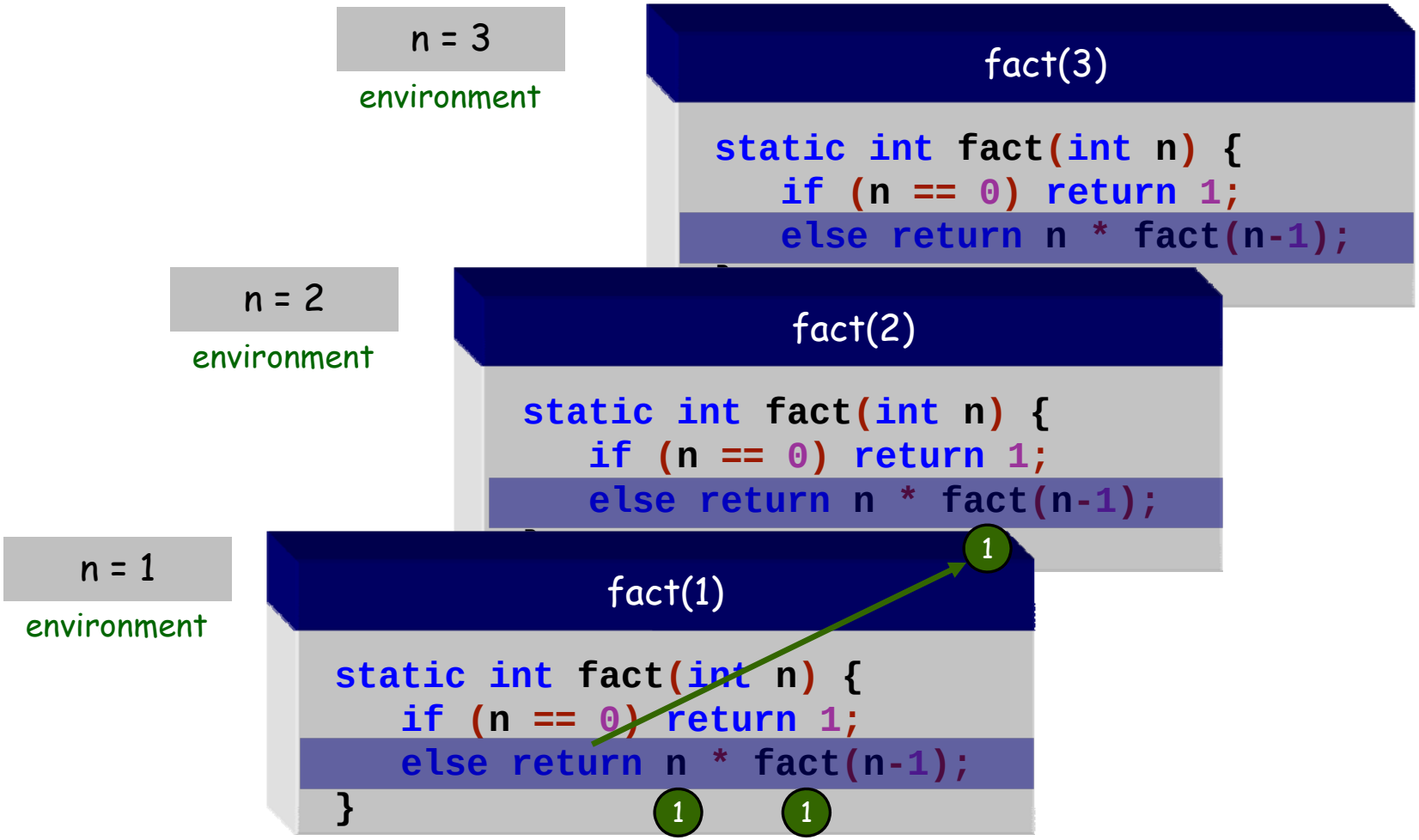
1
1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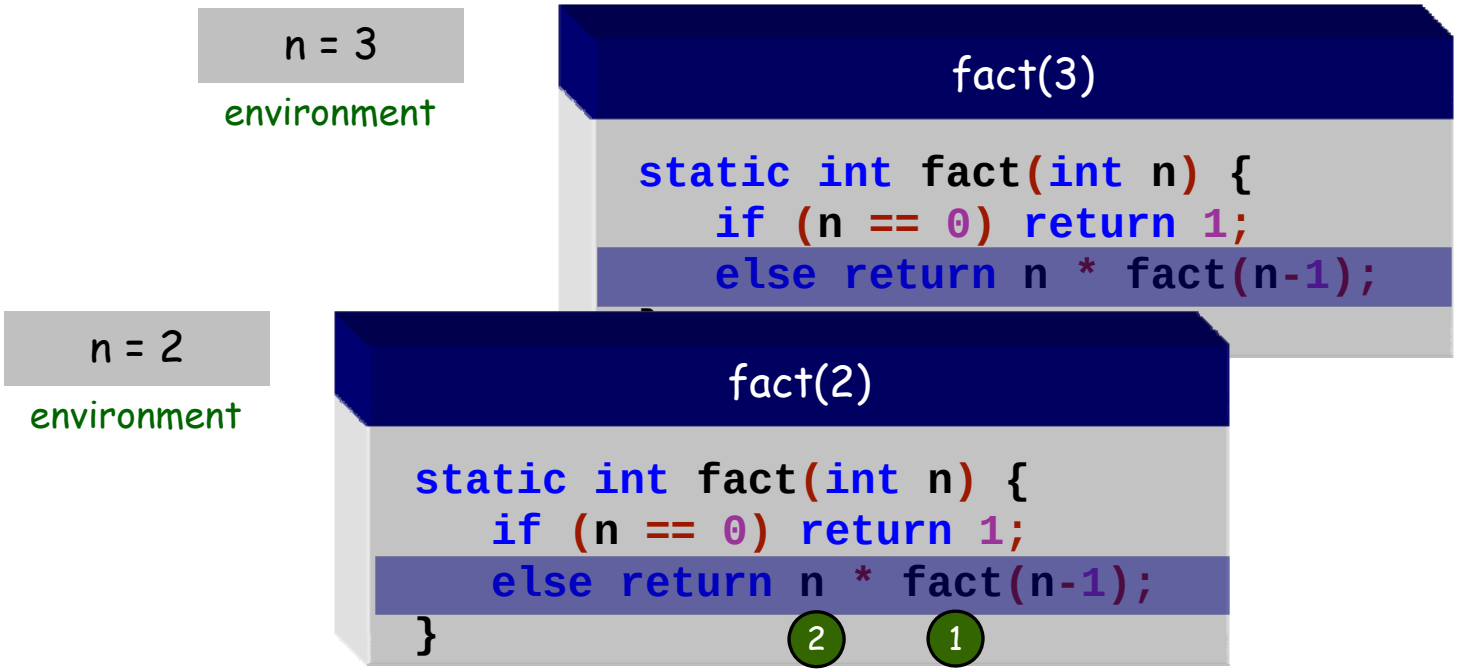
}
1
1
1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n = 2
environment
fact(2)
static int fact(int n) {
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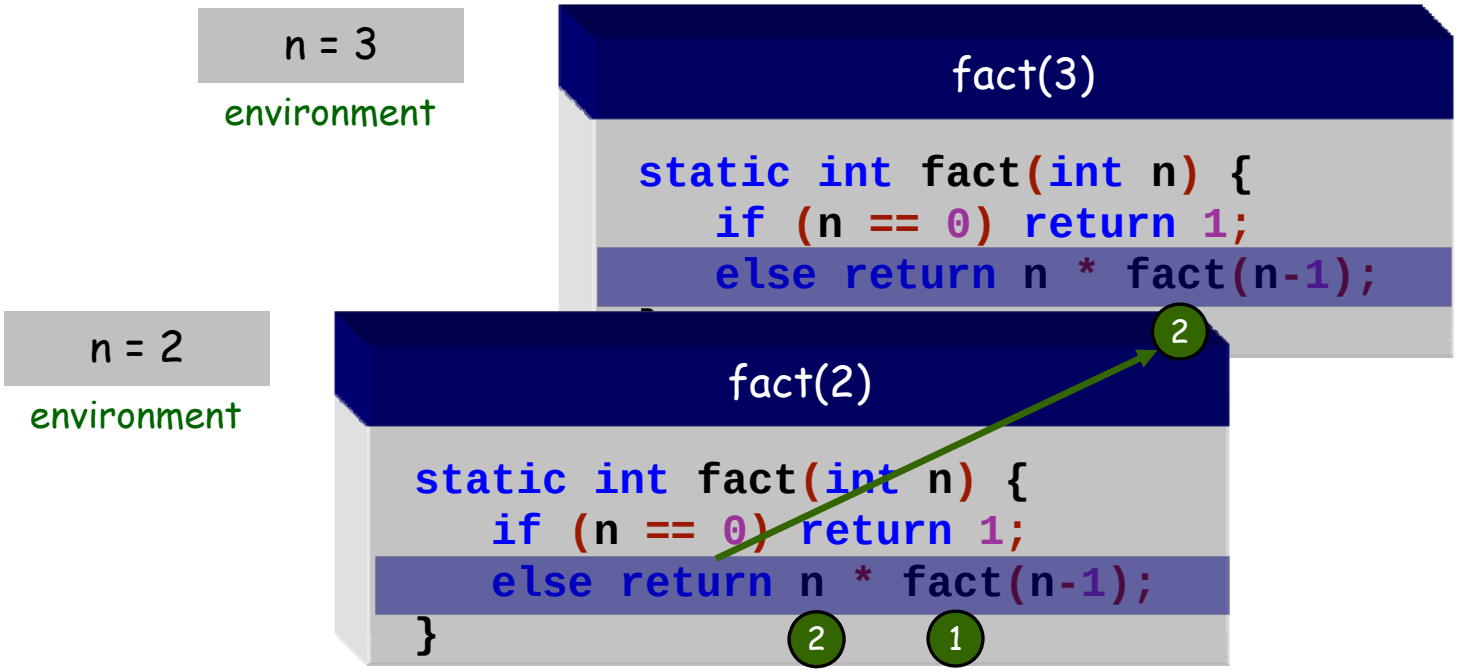
else return n * fact(n-1);
}
2
1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fact(2)
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}
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2
1

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   public static void main(String[] args) {
      System.out.println(fact(3));
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}
```

6

```
% java Factorial
6
```