

# Lecture 7

# Recap: function scoping

- Variables created within a function don't exist outside
- If a variable is not defined in a function, R looks outside the function
- Names defined inside a function *mask* names defined outside a function

# What will happen?

```
1 x <- 10
2
3 g02 <- function(x){
4   x <- x + 1
5   return(x)
6 }
7
8 g02(x)
9 x + 1
```

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8 g02(x)
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```
[1] 11
```

```
1 x + 1
```

```
[1] 11
```

# What will happen?

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# What will happen?

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6 }
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8 x <- g02(x)
9 x + 1
```

[1] 12

# What will happen?

```
1 g02 <- function(y){  
2   y <- y - 1  
3   return(y)  
4 }  
5  
6 g02(g02(20))
```

# What will happen?

```
1 g02 <- function(y){  
2   y <- y - 1  
3   return(y)  
4 }  
5  
6 g02(g02(20))
```

```
[1] 18
```



