

## *Practical 2*

### *Jumping Rivers*

#### *Question 1*

Consider the following simple function

```
v = 5
Fun1 = function() {
  v = 0
  return(v)
}
Fun1()
```

1. Why does the final line return 0 and not 5.
2. Delete line 3 in the above piece of code. Now change `Fun1()` to allow `v` to be passed as an argument, i.e. we can write `Fun1(5)`. Call this function to make sure it works.

#### *Question 2*

```
Fun2 = function(x = 10) {
  return(x)
}

Fun3 = function(x) {
  return(x)
}
```

1. Why does

```
Fun2()
```

work, but this raises an error

```
Fun3()
```

2. Change `Fun2` so that it returns `x*x`.

#### *Question 3*

```
a = 2
total = 0
for (blob in a:5) {
  total = total + blob
}
```

1. In the code above, delete line 1. Now put the above code in a function called `Fun5`, where `a` is passed as an argument, i.e. we can call `Fun5(1)`
2. Alter the code so that the `for` loop goes from `a` to `b`, rather than `a` to 5. Allow `b` to be passed as an argument, i.e. we can call `Fun5(1,5)`.
3. Change `Fun5` so that it has default arguments of `a = 1` and `b = 10`.

### *Solutions*

Solutions are contained within this package:

```
vignette("solutions2", package = "jrProgramming")
```