

## *Solutions 3*

### *Jumping Rivers*

#### *Question 1*

Start with the following function definition:

```
def Fun4(x):  
    if x == 5:  
        y = 0  
    else:  
        y = 1  
    return y
```

1. Change Fun4 so that it:

- returns 1 if  $x$  is positive;
- returns -1 if  $x$  is negative;
- returns 0 if  $x$  is zero.

```
def Fun4(x):  
    if x > 0:  
        y = 1  
    elif x < 0:  
        y = -1  
    else:  
        y = 0  
    return y
```

2. Without using python, what do you think the value of  $y$  will be after these two lines of code?

```
y = 0  
Fun4(10)
```

##  $y$  is 0 because the  $y$  inside Fun4 exists only in Fun4