Exercise 1

How to solve problems in R? - A suggestion...

Do I know what to do?

- Yes:
  → *Go for it...*
- Maybe:
  → *Try...*
- No:
  → *Look for help in R (`?function_name`, e.g. `?mean`)*
  → *Ask Google (e.g. 'r how to calculate mean of data frame column')*
  → *Look for help on one of the cheat sheets*
  → *Look for hints on the last page of the exercise sheet*

Vectors

1. What results do you expect of the following commands?

```
x <- c(2, 5, 6, 5)
y <- c(3, 5, 8)

class(x)

x + 1
x + y

y[2:3]
x[x > 5]

x <- x[1:2]
length(x)

member <- c(TRUE, TRUE, FALSE, TRUE)
?sum
sum(member)
```

2. Create vectors

Try to recreate the following vectors:

```
vec1
```

```
##  [1]  1.0  1.5  2.0  2.5  3.0  3.5  4.0  4.5  5.0  5.5  6.0  6.5  7.0  7.5
## [15]  8.0  8.5  9.0  9.5 10.0
```

```
vec2
```

```
##  [1]  1  1  1  1  4  4  4  4  8  8  8  8 13 13 13 13
```

For those who have time left...

3. Combine vectors

Combine the vectors `canton` and `peak` to `peak_canton`.

i) Create the `canton` vector

```
canton
```

```
## [1] "GR" "TI" "UR" "BE" "VS"
```

ii) Create the `peak` vector

```
peak
```

```
## [1] "Piz Bernina"         "Adula Rheinwaldhorn" "Dammastock"
## [4] "Finsteraarhorn"      "Dufourspitze"
```

iii) What class are the vectors `canton` and `peak`?

iv) Combine the vectors `canton` and `peak`

```
peak_canton
```

```
## [1] "Piz Bernina_GR"         "Adula Rheinwaldhorn_TI"
## [3] "Dammastock_UR"          "Finsteraarhorn_BE"
## [5] "Dufourspitze_VS"
```

Hints

1. What results do you expect of the following commands?

Type the code into your console and execute the code.
Shortcut Mac: Cmd + Enter
Shortcut Windows: Ctrl + Enter

2. Create vectors

Have a look at the functions `seq` and `rep`.
You can see the help files by typing `?sep` and `?rep`.

3. Combine vectors

Have a look at the function `paste` (`?paste`).
Check the argument `sep = " "` inside the function `paste`.