Simple example of Sweave

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1 Introduction

Just a simple introduction to Sweave.

> a = 1
> b = 4
> a + b

[1] 5

> print("hello")

[1] "hello"

We can call R commands from the text. For example a+b= 5

2 Including a Plot

Now for a plot. Note we include fig=TRUE, which prints the plot within the document

> plot(1:10, col = "red", pch = 19)
Thats it.... simple hey!

2.1 More on Plots

To make the plot a little nicer, we can add a caption. Also lets change the size of the plot to be 4” in height and 6” in width
2.2 Creating a table

Let's include a table using the dataset, which is included in the default core installation of R. It contains the height and weight of 15 women.

```r
> require(xtable)
> myTable <- summary(women)
```

We can manually encode a table in LaTeX:

\begin{verbatim}
Min. : 58.0   Min. : 115.0
1stQu. : 61.5   1stQu. : 124.5
Median : 65.0   Median : 135.0
Mean : 65.0   Mean : 136.7
3rdQu. : 68.5   3rdQu. : 148.0
Max. : 72.0   Max. : 164.0
\end{verbatim}

But it is much easier to use the package \texttt{xtable}. We use the function \texttt{require} to load the package.

```r
> xtab <- xtable(myTable)
> print(xtab, floating = FALSE)
```
2.3 More on tables

Let make the table nice. Let’s exclude the row numbers and include a caption on the table. We can also tag the table so we reference Table 1 in the text.

```r
> xtab2 <- xtable(myTable, caption = "Summary of women data", label = "Table:women")
> print(xtab2, include.rownames = FALSE)
```

<table>
<thead>
<tr>
<th>height</th>
<th>weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. :58.0</td>
<td>Min. :115.0</td>
</tr>
<tr>
<td>1st Qu.:61.5</td>
<td>1st Qu.:124.5</td>
</tr>
<tr>
<td>Median :65.0</td>
<td>Median :135.0</td>
</tr>
<tr>
<td>Mean :65.0</td>
<td>Mean :136.7</td>
</tr>
<tr>
<td>3rd Qu.:68.5</td>
<td>3rd Qu.:148.0</td>
</tr>
<tr>
<td>Max. :72.0</td>
<td>Max. :164.0</td>
</tr>
</tbody>
</table>

Table 1: Summary of women data
3 SessionInfo

> sessionInfo()

R version 2.12.2 (2011-02-25)
Platform: i386-pc-mingw32/i386 (32-bit)

locale:
[1] LC_COLLATE=English_United States.1252
[2] LC_CTYPE=English_United States.1252
[3] LC_MONETARY=English_United States.1252
[4] LC_NUMERIC=C
[5] LC_TIME=English_United States.1252

attached base packages:
[1] stats graphics grDevices utils datasets methods base

other attached packages:
[1] xtable_1.5-6