# knitr fig.keep="all" does not produce uniform margins

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## Contents

This does the usual R thing of creating a blank plot and then writing on it.

```
plot(c(0, 1), c(0, 1), xlim=c(0,1), ylim=c(0,1), type="n", ann=FALSE, axes=F)
rect(0, 0, 1, 1, col="light grey", border="grey")
axis(1, tck=0.01, pos=0, cex.axis=0.6, padj=−3, lwd=0.8,
    at=seq(0, 1, by=0.2), labels=c("", seq(0.2,0.8, by=0.2), ""))
axis(2, tck=0.01, pos=0, cex.axis=0.6, padj=3, lwd=0.3,
    at=seq(0, 1, by=0.2), labels=c("", seq(0.2,0.8, by=0.2), ""))
mtext(expression(x), side=1, line=0.5, at=.6, cex=.6)
mtext(expression(y), side=2, line=0.5, at=.6, cex=.6)
mtext(c("Min x", "Max x"), side=1, line=−0.5, at=c(0.05, 0.95), cex=.6)
mtext(c("Min y", "Max y"), side=2, line=−0.5, at=c(0.05, 0.95), cex=.6)
lines(c(.6, .6, 0), c(0, .6, .6), lty="dashed")
text(.6, .6, expression(paste("The location ",
                                group("(",list(x[i] == .6, y[i] == .6),")")))), pos=3, cex=.7
points(.6, .6, pch=16)
```

We might be in teaching mode and we need to demonstrate the effect of each successive R function in the process of creating the figure. I ask for each intermediate plot by inserting fig.keep="all""

```
```{r chunk76, ref.label='chunk71', echo=F, fig=T, include=F, fig.keep="all", collapse=T,
```
```

A quick check of the tmpout directory shows that this code created several graphs. Observe:

```
list.files("tmpout", pattern="p−chunk76.*pdf")
```

```
 [1] "p−chunk76−1.pdf"   "p−chunk76−10.pdf"  "p−chunk76−11.pdf"
 [4] "p−chunk76−2.pdf"   "p−chunk76−3.pdf"   "p−chunk76−4.pdf"
 [7] "p−chunk76−5.pdf"   "p−chunk76−6.pdf"   "p−chunk76−7.pdf"
[10] "p−chunk76−8.pdf"   "p−chunk76−9.pdf"
```

The problem I see is that the output figures are not uniform in their margins. Some have the large white space, some do not. I need to remedy this.

The margins are large on even numbered graphs and small on odd numbered.
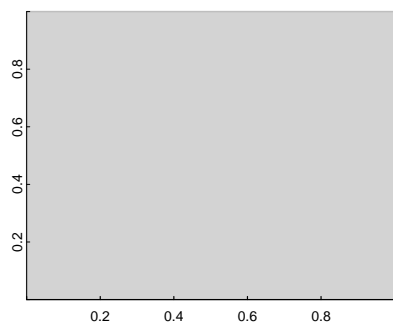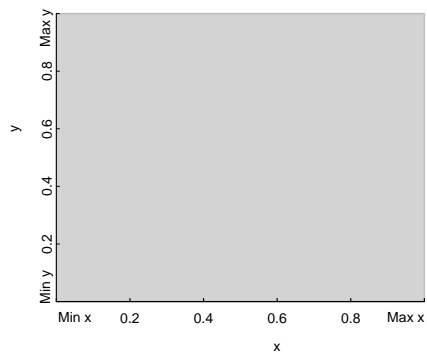
## Session Info

```
warnings()
```

NULL

```
sessionInfo()
```

Figure 1: Four snapshots not all same margins

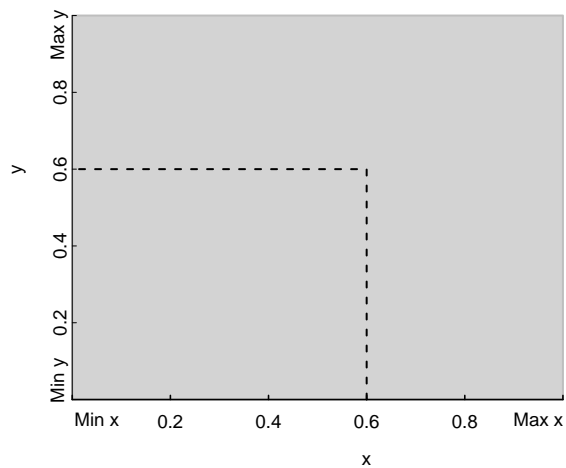(a) graph 4

(b) graph 8

(c) graph 9
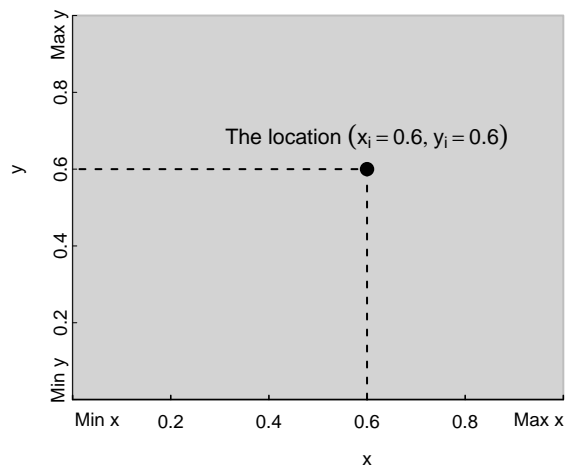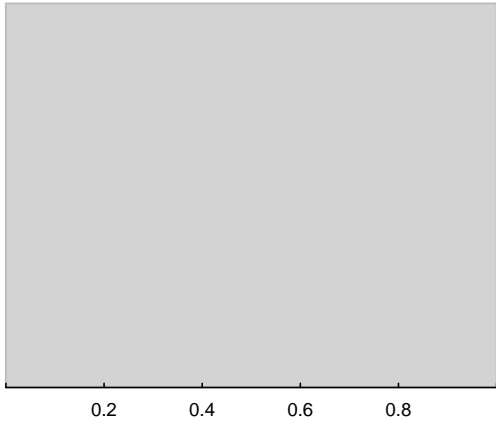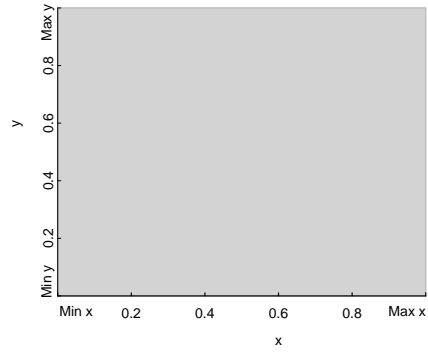
(d) graph 11

The location $\left(x_i = 0.6,\, y_i = 0.6\right)$

Figure 2: Checking the odd-even pattern

(a) graph 3



(b) graph 8



(c) graph 10



The location $(x_i = 0.6, y_i = 0.6)$

(d) graph 11



The location $(x_i = 0.6, y_i = 0.6)$
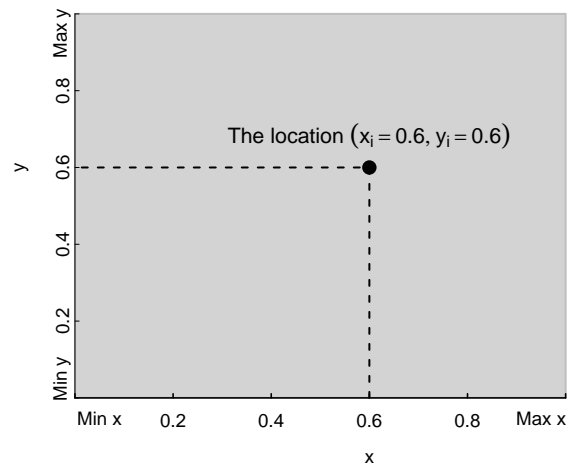
```
R version 3.4.1 (2017-06-30)
Platform: x86_64-pc-linux-gnu (64-bit)
Running under: Ubuntu 17.04

Matrix products: default
BLAS: /usr/lib/libblas/libblas.so.3.7.0
LAPACK: /usr/lib/lapack/liblapack.so.3.7.0

locale:
 [1] LC_CTYPE=en_US.UTF-8       LC_NUMERIC=C
 [3] LC_TIME=en_US.UTF-8        LC_COLLATE=en_US.UTF-8
 [5] LC_MONETARY=en_US.UTF-8    LC_MESSAGES=en_US.UTF-8
 [7] LC_PAPER=en_US.UTF-8       LC_NAME=C
 [9] LC_ADDRESS=C               LC_TELEPHONE=C
[11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C

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

loaded via a namespace (and not attached):
 [1] compiler_3.4.1  backports_1.1.0 magrittr_1.5    rprojroot_1.2
 [5] tools_3.4.1     htmltools_0.3.6 yaml_2.1.14     Rcpp_0.12.11
 [9] stringi_1.1.5   rmarkdown_1.6   knitr_1.16      stringr_1.2.0
[13] digest_0.6.12   evaluate_0.10
```