Brother Bear

Sitka

8/24/2015

Main Text

I am curious to see what my little brother Kenai has been doing lately. It seems he developed a tool (Arnholt & Mair, 2002) that is more sophisticated than my leatherman knife shown below.

Kenai did some fantastic facial reconstruction (Lopez & Arnholt, 2007) while he was deployed. Keep up the good work little brother!

Notes

If you want to change the citation style language (csl) pass a different argument to `csl` in the YAML. Different `csl` files for zotero can be downloaded from https://www.zotero.org/styles.

Make sure your `*.bib` file is in the same folder as your `*.Rmd` or specify the path to your `*.bib` file in the YAML. The same advice applies to the `csl` file.

Some Mathematics

Mathematics can be written with standard LaTeX. Inline equations are enclosed in between single `$` signs, and display equations are enclosed between double `$$` signs.

The limit of a function

$$\lim_{x \to c} f(x) = l \iff \forall \epsilon > 0 \quad \exists \delta > 0 \text{ such that if } 0 < |x - c| < \delta, \text{ then } |f(x) - l| < \epsilon$$

Simple Integral

$$\int_3^{10} \frac{1}{10}\, dx = 0.7$$

```
a <- 3
b <- 10
f <- function(x){1/10}
answer <- integrate(Vectorize(f), a, b)$value
answer
```

```
[1] 0.7
```

$$\int_3^{10} \frac{1}{10}\, dx = 0.7$$

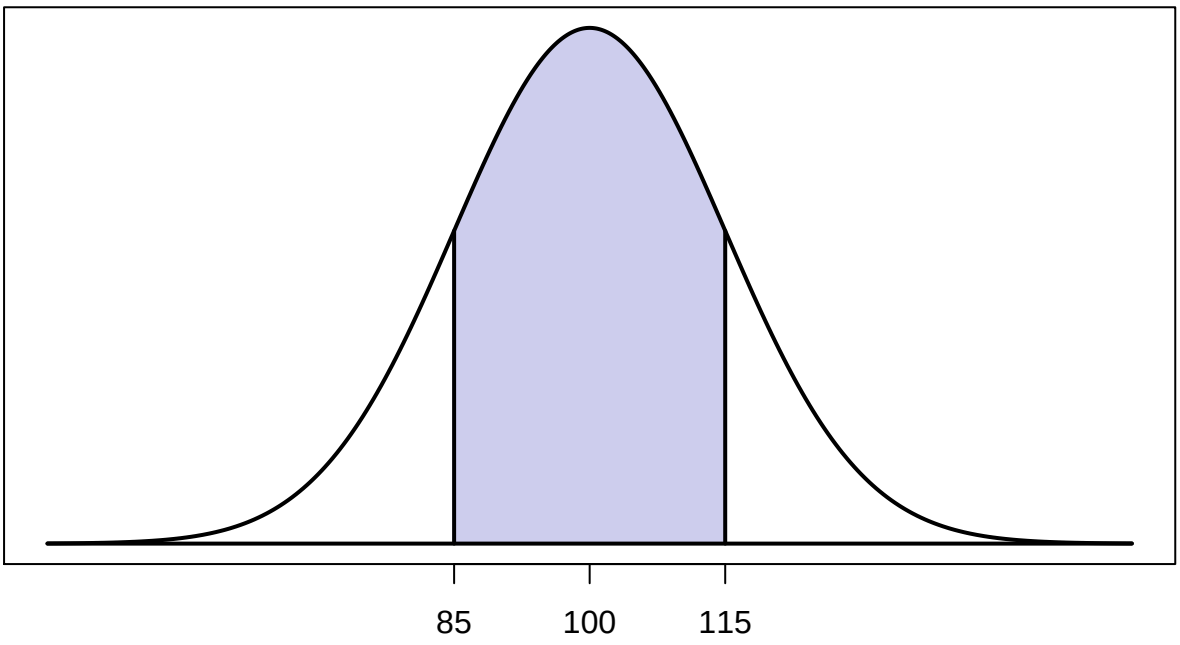
$$\int_6^{10} \frac{1}{10}\, dx = 0.4$$

More Challenging Integral?

$$\int_{85}^{115} \frac{1}{\sqrt{2\pi 15^2}} e^{\frac{(x-100)^2}{2\times 15^2}}\, dx = 0.6826895$$

A Graph?

```
library(PASWR2)
normarea(85, 115, 100, 15)
```



Show Session Information

```
sessionInfo()
```

```
R version 3.2.1 (2015-06-18)
Platform: x86_64-unknown-linux-gnu (64-bit)
Running under: Red Hat Enterprise Linux Server release 6.7 (Santiago)

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   base

other attached packages:
[1] PASWR2_1.0      lattice_0.20-31 ggplot2_1.0.1

loaded via a namespace (and not attached):
 [1] Rcpp_0.11.6      class_7.3-12     digest_0.6.8     MASS_7.3-40
 [5] grid_3.2.1       plyr_1.8.3       gtable_0.1.2     formatR_1.2
 [9] magrittr_1.5     e1071_1.6-4      scales_0.2.5     evaluate_0.7.2
```

```
[13] stringi_0.5-5    reshape2_1.4.1   rmarkdown_0.7    proto_0.3-10
[17] tools_3.2.1      stringr_1.0.0    munsell_0.4.2    yaml_2.1.13
[21] colorspace_1.2-6 htmltools_0.2.6  knitr_1.11
```

References

Abadie, W. M., Arnholt, J. L., & Miller, L. A. (2010). Dysgenesis of the middle turbinate: A unique cause of nasal airway obstruction. *Otolaryngology – Head and Neck Surgery*, *143*(2), 317–318. http://doi.org/10.1016/j.otohns.2010.02.020

Arnholt, J. L., & Mair, E. A. (2002). A "Third Hand" for Endoscopic Skull Base Surgery. *The Laryngoscope*, *112*(12), 2244–2249. http://doi.org/10.1097/00005537-200212000-00021

Lopez, M. A., & Arnholt, J. L. (2007). Safety of Definitive In-Theater Repair of Facial Fractures. *Archives of Facial Plastic Surgery*, *9*(6), 400–405. http://doi.org/10.1001/archfaci.9.6.400