



R Code for Examples in the book
"Statistics: The Art and Science of Learning from Data"
 by Agresti, Franklin and Klingenberg, 5th edition

Chapter 7

Example 5: Average Salary – Sampling Distribution of the Sample Mean

Reading in average salary data

```
mu <- 150
sigma <- 60
n <- 32
```

To compute standard error or the standard deviation of the sample mean

```
stdev <- round(sigma / sqrt(n), 1)
```

To compute the interval you can expect 95% of the average salaries to fall over many seasons

```
mu + c(-1, 1) * 2 * stdev
## [1] 128.8 171.2
```

To compute the probability that there is a season when his average salary falls below €130, you can use

```
pnorm(130, mean = 150, sd = 10.6)
## [1] 0.02959412
```