

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

Chapter 6

Example 9: Relative Standing on the SAT – Using z-Scores to Find Percentiles

```
To compute the z-Score of an SAT score of 650 in a component
```

```
z <- (650 - 500) / 100
z
## [1] 1.5
```

```
To find the percentage of SAT scores higher than 650 for some component
```

```
pnorm(650, mean = 500, sd = 100, lower = FALSE)
## [1] 0.0668072
```

or using the z-score

```
pnorm(z, lower = FALSE)
## [1] 0.0668072
```