

```
set.seed(000)

n_friends <- 20

Edward <- rnorm(n_friends, mean=170, sd=10)
Hugo <- rnorm(n_friends, mean=175, sd=15)
Lucy <- rnorm(n_friends, mean=180, sd=20)

heights <- data.frame(Edward= Edward, Hugo= Hugo, Lucy= Lucy)

heights
```

```
##      Edward      Hugo      Lucy
## 1  182.6295  171.6360  215.1581
## 2  166.7377  180.6609  191.2149
## 3  183.2980  177.0000  170.9443
## 4  182.7243  187.0628  163.3591
## 5  174.1464  174.1434  156.6686
## 6  154.6005  182.5541  158.6882
## 7  160.7143  191.2865  148.7244
## 8  167.0528  164.6357  203.1307
## 9  169.9423  155.7310  196.6409
## 10 194.0465  175.7009  175.4534
## 11 177.6359  171.4644  185.3227
## 12 162.0099  166.8567  172.4659
## 13 158.5234  168.5003  228.8273
## 14 167.1054  165.2579  164.0932
## 15 167.0078  185.9013  178.9025
## 16 165.8849  192.2787  185.0028
## 17 172.5222  189.8824  192.3649
## 18 161.0808  168.5573  176.5475
## 19 174.3568  193.5746  135.5220
## 20 157.6246  170.8098  154.7277
```

```
set.seed(111)

n_friends <- 20

Edward <- rnorm(n_friends, mean=170, sd=10)
Hugo <- rnorm(n_friends, mean=175, sd=15)
Lucy <- rnorm(n_friends, mean=180, sd=20)

heights <- data.frame(Edward= Edward, Hugo= Hugo, Lucy= Lucy)

heights
```

```
##      Edward      Hugo      Lucy
## 1  172.3522  180.4249  156.4855
## 2  166.6926  180.2045  157.5757
## 3  166.8838  177.8460  152.7619
## 4  146.9765  172.6063  189.6225
## 5  168.2912  179.8982  194.8394
## 6  171.4028  183.9738  180.5565
## 7  155.0257  147.3770  186.6276
```

```
## 8 159.8981 215.7708 192.8823
## 9 160.5152 177.8687 229.7132
## 10 165.0604 155.4806 219.1996
## 11 168.2633 128.3017 183.8333
## 12 165.9340 160.8796 211.0509
## 13 188.4564 196.0039 198.2848
## 14 173.9405 150.6929 187.1725
## 15 177.9753 141.0101 183.5019
## 16 154.3333 192.4449 163.0546
## 17 169.1415 173.2577 199.5646
## 18 166.4086 180.0138 216.1174
## 19 158.0639 165.6871 182.4583
## 20 173.6419 155.3523 177.4046
```

```
set.seed(222)
```

```
n_friends <- 20
```

```
Edward <- rnorm(n_friends, mean=170, sd=10)
```

```
Hugo <- rnorm(n_friends, mean=175, sd=15)
```

```
Lucy <- rnorm(n_friends, mean=180, sd=20)
```

```
heights <- data.frame(Edward= Edward, Hugo= Hugo, Lucy= Lucy)
```

```
heights
```

```
##      Edward      Hugo      Lucy
## 1 184.8776 185.8968 184.0477
## 2 169.9811 185.7049 189.9020
## 3 183.8102 165.2491 168.6129
## 4 166.1979 197.4804 202.3859
## 5 171.8414 153.4626 224.1816
## 6 167.5310 142.5802 186.3437
## 7 157.8444 180.9283 161.2941
## 8 185.6141 169.0775 196.2732
## 9 174.2731 170.3536 172.4927
## 10 157.9898 194.9624 186.6620
## 11 180.5246 162.7386 191.8883
## 12 156.9494 185.1384 190.4174
## 13 163.0739 171.7678 160.9591
## 14 176.0265 173.2803 155.4463
## 15 168.0225 171.9660 175.9519
## 16 158.1413 181.0974 201.1824
## 17 149.9449 184.8516 187.6356
## 18 170.0751 176.5929 204.7939
## 19 175.1949 172.2340 186.3355
## 20 162.5370 189.1905 159.1324
```