MATH 3070 Lab Fall Project 1

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September 10, 2020

Contents

Remember: I expect to see commentary either in the text, in the code with comments created using **#**, *or (preferably) both!* ***Failing to do so may result in lost points!***

Problem 1 (Verzani problem 1.1)

Use R as you would a calculator to find numeric answers to the following:

1. $1 + 2(3 + 4)$

```
# Your solution here
1 + 2 * (3 + 4)
```

```
## [1] 15
```

2. $4^3 + 3^{2+1}$

```
# Your solution here
(4 ** 3) + 3**(2 + 1)
```

```
## [1] 91
```

3. $\sqrt{(4 + 3)(2 + 1)}$

```
# Your solution here
sqrt((4 + 3) * (2 + 1))
```

```
## [1] 4.582576
```

4. $\left(\frac{1+2}{3+4}\right)^2$

```r
# Your solution here
((1 + 2)/(3 + 4))^2
```

```
## [1] 0.1836735
```

Problem 2 (Verzani problem 1.4)

Use R to compute the following:

$$\frac{0.25 - 0.2}{\sqrt{0.2(1 - 0.2)/100}}$$

```r
# Your solution here
((0.25 - 0.2)/(sqrt(0.2 *(1 - 0.2)/100)))
```

```
## [1] 1.25
```

Problem 3 (Verzani problem 1.7)

The ***exec.pay*** *(**UsingR**) data set is available after loading the package **UsingR**. Load the package, and inspect the data set. Scan the values to find the largest one.*

```r
# Your solution here
require(UsingR)
```

```
## Loading required package: UsingR
```

```
## Loading required package: MASS
```

```
## Loading required package: HistData
```

```
## Loading required package: Hmisc
```

```
## Loading required package: lattice
```

```
## Loading required package: survival
```

```
## Loading required package: Formula
```

```
## Loading required package: ggplot2
```

```
##
## Attaching package: 'Hmisc'
```

```
## The following objects are masked from 'package:base':
##
##     format.pval, units
```

```
##
## Attaching package: 'UsingR'

## The following object is masked from 'package:survival':
##
##     cancer
```

```
max(exec.pay)
```

```
## [1] 2510
```