# STA 602L Homework and Lab Template

### Student

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Visit this site for more information on R Markdown.

### Exercise 1

Brief statement of the problem (optional)

### Part (a)

Then, some math:

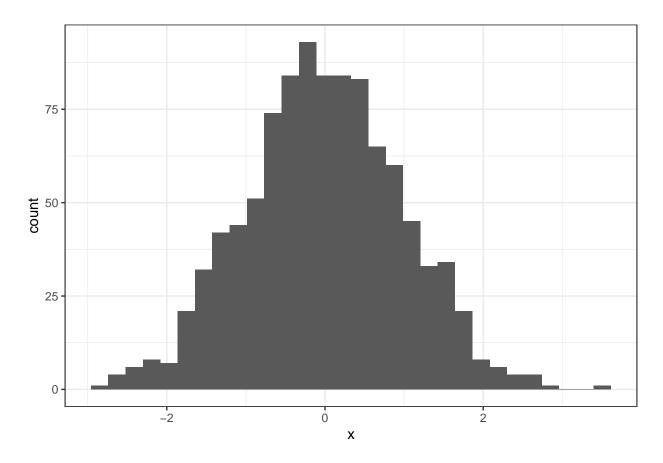
$$X \sim N(\mu, 1) \implies p_X(x) = \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2}(x-\mu)^2}$$

### Part (b)

Finally, some code:

```
x <- rnorm(1000, 0, 1)
x %>% data.frame() %>% ggplot2::ggplot() + geom_histogram(aes(x = x))
```

## `stat\_bin()` using `bins = 30`. Pick better value with `binwidth`.



## Exercise 2

 ${\bf Repeat...}$ 

- Part (a)
- Part (b)