

## Homework 2 590610644

```
47 # 1
48 t.test(x,
49       alternative = "less",
50       mu = 3150,
51       conf.level = 0.90)
52
53 # 2
54 x_bar <- mean(x)
55 x_sd <- sd(x)
56 n <- length(x)
57 a <- 0.1
58 mu <- 3150
59 t0 <- (x_bar - mu) / (x_sd / sqrt(n))
60 (p <- 1 - (1 - pt(t0, 14)))
61
```

61:1 (Top Level) ↕

Console ~/ ↗

```
> t.test(x,
+       alternative = "less",
+       mu = 3150,
+       conf.level = 0.90)

One Sample t-test

data: x
t = 2, df = 14, p-value = 0.9674
alternative hypothesis: true mean is less than 3150
90 percent confidence interval:
 -Inf 3251.578
sample estimates:
mean of x
 3210.733

> (p <- 1 - (1 - pt(t0, 14)))
[1] 0.967354
> |
```

3. ไม่ เนื่องจากค่า p-value (0.9674) มากกว่าค่า alpha (0.1 หรือ  $1 - 0.9$ )

จึงสรุปได้ว่า Fail to reject null hypothesis