

Lab 7

- Q) Consider the two data sets of two machines producing sample units machine 1: (---) & machine 2: (---). Tests whether the difference between the two means is statistically significant using two sample t-test formula (use t-distribution table). Write R code for carrying out the t-test. Visualize the t-test using suitable library function in R.

A) library(visualize)

```
machine1 = c(363, 404, 518, 521, 613, 587, 412, 469, 468, 496)
```

```
machine2 = c(536, 474, 556, 549, 479, 422, 414, 505, 505, 552)
```

```
mean(machine1)
```

```
var(machine1)
```

```
sd(machine1)
```

```
mean(machine2)
```

```
var(machine2)
```

```
sd(machine2)
```

```
#perform t-test
```

```
t.test(x=machine1, y=machine2, var.equal=TRUE, conf.level=0.95)
```

```
visualize.t(tstat = c(-0.47061, 0.47061), df=18, section =
```

Teacher's Signature: \_\_\_\_\_

"facts"