Stat 541 Experimental Design Project 1

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```
pre_dat <- data.frame(pot = rep(c("small", "large"), each = 3),
                      seconds = c(170, 162, 184, 112, 126, 119))
sig <- pre_dat |> group_by(pot) |> summarise(s = sd(seconds)) |> pull()
power.t.test(delta = 30, sd = sig[1], sig.level = 0.01, type = "two.sample",
             power = 0.99, alternative = "one.sided")
```

```
     Two-sample t test power calculation

              n = 4.104596
          delta = 30
             sd = 7
      sig.level = 0.01
          power = 0.99
    alternative = one.sided

NOTE: n is number in *each* group
```

```
power.t.test(delta = 30, sd = sig[2], sig.level = 0.01, type = "two.sample",
             power = 0.99, alternative = "one.sided")
```

```
     Two-sample t test power calculation

              n = 7.533703
          delta = 30
             sd = 11.13553
      sig.level = 0.01
          power = 0.99
    alternative = one.sided

NOTE: n is number in *each* group
```