Midterm (take 2) practice

Name: _____

Note: There will be only one question on the "midterm (take 2)" on Tuesday Nov 7.

Question 1

Consider this `R` code.

```
# R help for `rnorm` function: "random generation for the normal distribution
# with mean equal to `mean` and standard deviation equal to `sd`.
pop <- rnorm(n = 10000, mean = 2, sd = 1)
sto <- rep(NA, times = 1000)
for(i in 1:500){
  samp <- sample(pop, size = 50)
  sto[i] <- mean(samp)
}
```

(1a) Having run the code above, you find that `mean(sto)` returns `NA`. This is because of an error in the code. How would you fix the error? (Be specific.)

(1b) Once the error is fixed, what would be the result of `mean(sto)` (approximately)?

(1c) Once the error is fixed, what would be the result of `sd(sto)` (approximately)?

Question 2

Consider this R code.

```
two_means <- function(x, y){
  c(mean(x[y == 0]), mean(x[y == 1]))
}
```

(2a) What would be the result of the following code?

```
two_means(x = c(3,4,2,5,3), y = c(0, 0, 0, 1, 1))
```

(2b) What would be the result of the following code?

```
two_means(x = c(3,4,2,5,3), y = c(0, 3, 0, 1, 4))
```