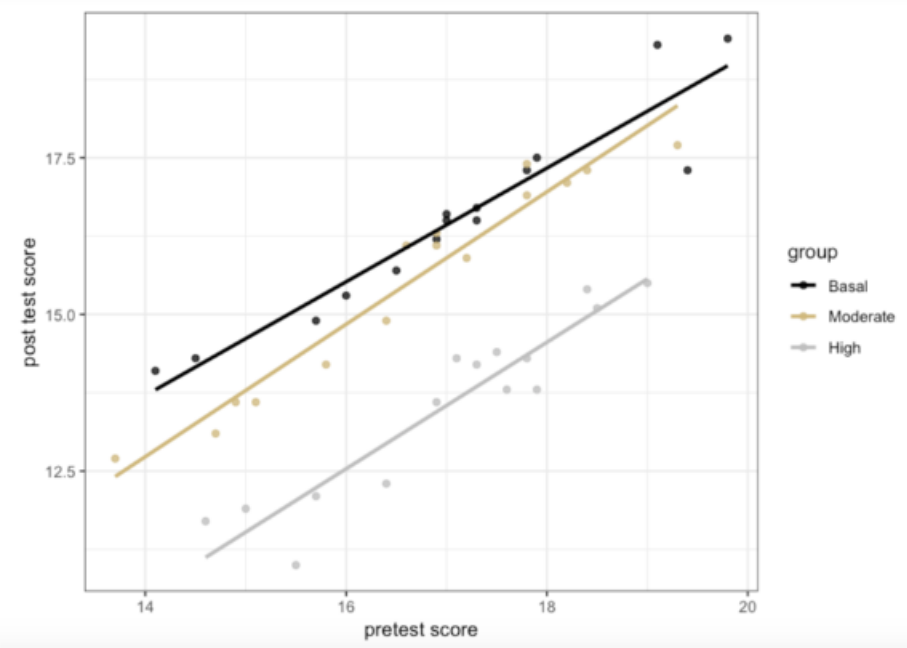
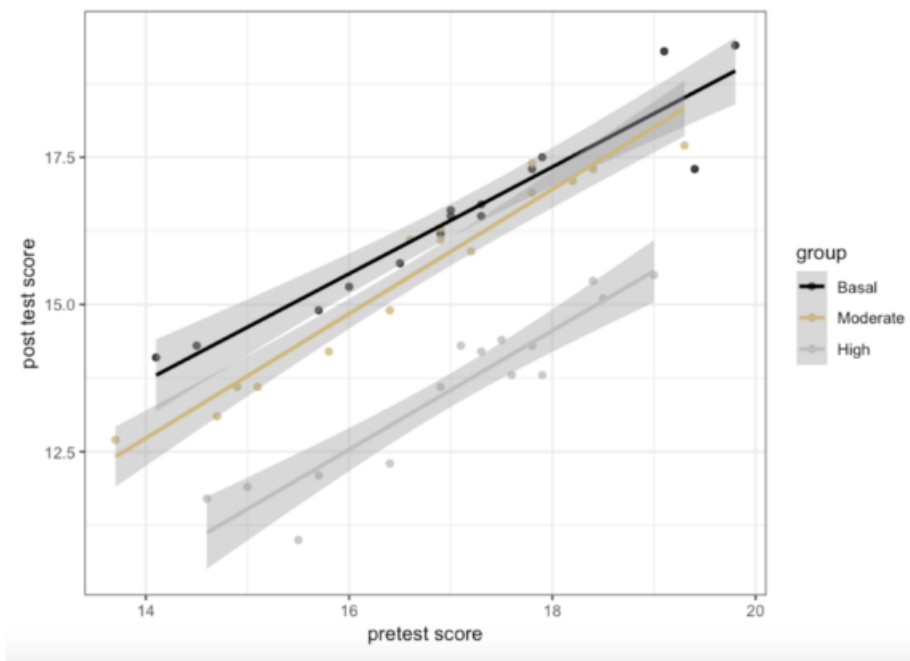
Based on the plot below, is the decrease in average post-test score from the Moderate group to the High group dependent on pre-test score?



Yes, because both the gold and grey lines have a positive slope.

No, the gold and grey lines appear roughly parallel, and thus, the distance between them for any value of pre-test score is roughly the same.

The confidence bands in the plot below suggest that:



There is not a population-level interaction between pre-test score and exercise level because the confidence bands for no exercise and moderate exercise overlap.

There is a population-level interaction between pre-test score and exercise level because the confidence bands for no exercise and moderate exercise overlap.

There is not a population-level interaction between pre-test score and exercise level because each line can be adjusted within its confidence band so that all three lines are parallel.

There is a population-level interaction between pre-test score and exercise level because each line can be adjusted within its confidence band so that all three lines are parallel.

Based on the plot below, in the sample, there is evidence that, the lower an individual's initial anxiety, the more a moderate exercise plan can help reduce anxiety even further.

True

False

The output below provides evidence that there is a true population-level interaction between pre-test score and exercise level.

```
anc_anxiety = lm(posttest ~ group + pretest, data = anxiety)
anc_anxiety_interact = lm(posttest ~ group + pretest + group:pretest, data = anxiety)
anova(anc_anxiety, anc_anxiety_interact)
```

Res.Df	RSS	Df	Sum of Sq	F	Pr(>F)
41	9.468478	NA	NA	NA	NA
39	9.051225	2	0.4172534	0.8989327	0.4152692

True

False