

## MTH 451 Quiz 12

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### Question 1.

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- (a) We want to test the hypothesis that girls read more than boys so our  $H_a$  is  $\mu_g > \mu_b$ . Our Null hypothesis will be that this is not the case so  $H_0$  is  $\mu_g \leq \mu_b$ .
- (b) If we repeated the same study many times, and  $H_0$  is true, then about 7% of the studies would provide as much or more evidence for  $H_a$ .

### Question 2.

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I got 0.0083 which means there is a 0.83% chance of getting 3 heads on th biased coins. This makes since becuase the probability of any one coin being heads is .2 and or 20% and so the probability of all 3 being heads should be unlikely. We have  $.2^3 = .008$  as the theoretical and our approxamation is very close.