

## Homework Solutions

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#### Exercise 19

- (a) False. The values of  $\alpha$  and  $\beta$  are based on two different hypotheses (e.g., pictures), representing two different distributions. In our examples, we have already seen that  $\beta$  is not  $1 - \alpha$ .
- (b) False. You must either accept or reject  $H_0$ . If you accept it, then you did not make an error. If you reject it, then you made a Type I error, not a Type II error.
- (c) True.
- (d) False. It could be rejected in error, i.e., a Type I error.
- (e) False. The choice of one-sided vs. two-sided has nothing to do with the sample size.