

Use problem 13 on page 9-20

13. A bath soap manufacturing process is designed to produce a mean of 120 bars of soap per batch. Quantities over or under the standard are undesirable. A sample of ten batches shows the following number bars of soap.
- 108    118    120    122    119    113    124    122    120    123
- Using a 0.05 level of significance, test to see whether the sample results indicate that the manufacturing process is functioning properly.

Use problem 7 on page 9-36 –

7. Consider the following hypothesis test.

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_a: \mu_1 - \mu_2 \neq 0$$

$$n_1 = 64,$$

$$x_1 = 5.6,$$

$$s_1 = 48$$

$$n_2 = 38,$$

$$x_2 = 6.9,$$

$$s_2 = 17$$

- a. What is the value of the test statistic?  
 b. What is the p-value?

Use problem 5 on page 15-9

5. A large hotel purchased 200 new color televisions several months ago: 80 of one brand and 60 of each of two other brands. Records were kept for each set as to how many service calls were required, resulting in the table that follows.

Number of Service Calls	TV Brand			Total
	Sony	Toshiba	Sanyo	
None	8	15	18	41
One	30	55	12	97
Two or more	22	10	30	62
Total	60	80	60	200

Assume the TV sets are random samples of their brands. With 5% risk of Type I error, test for an association between TV brand and the number of service calls.