

1. Problem 8.8
2. Problem 8.11
3. Problem 9.2
4. Problem 9.7
5. Problem 9.8
6. Problem 9.9
7. Vitamin D intoxication may be linked to excessive consumption of dairy products. The following data reflect measurements of calcium (mmol/l) in patients who have vitamin D intoxication.

2.92 3.84 2.37 2.99 2.67 3.17 3.74 3.44 3.54 2.98 3.04 2.45 3.65

- a. Construct a 95% confidence interval for the mean.
- b. For healthy individuals, calcium levels in the range of 2.12 – 2.74 mmol/l are expected. Do the vitamin D intoxication patients appear to have normal calcium levels? Explain.
- c. What size sample would you need for a 95% confidence interval to have a width of 0.2 if the true population variance was equal to the one from this sample?