

Chap 17 Handout #2

Name _____ Pd _____

Show all necessary work and place your answers in/on the spaces provided.

New Cars.

It is generally believed that electrical problems affect about 14% of new cars. An automobile mechanic conducts diagnostic tests on 128 new cars on the lot.

1. Verify that a Normal model is appropriate to use to model this situation.
2. Which of the two types of data is this situation an example of?
3. Give the mean and standard deviation of this situation.
4. Sketch and clearly label the model.
5. What is the probability that in this group over 18% of the new cars will be found to have electrical problems?

Snake Means.

Herpetologists (snake specialists) found that certain species of reticulated python have an average length of 20.5 feet with a standard deviation of 2.3 feet. The scientists collect a random sample of 30 adult pythons and measure their lengths. In their sample the mean length was 19.5 feet long. One of the herpetologists fears that pollution might be affecting the natural growth of the pythons.

6. Do you think this sample result is unusually small? Defend your answer.