

More One-Proportion z Tests Homework #4

According to the Centers for Disease Control and Prevention (CDC) Web site, 50% of high school students have never smoked a cigarette. Taeyeon wonders whether this national result holds true in his large, urban high school. For his AP Statistics class project, Taeyeon surveys an SRS of 150 students from his school. He gets responses from all 150 students, and 90 say that they have never smoked a cigarette. What should Taeyeon conclude? Give appropriate evidence at the $\alpha = 0.1$ level to support your answer.

2. Lay's has just received a truckload of potatoes from its main supplier. They will assume that the truck is full of good potatoes, but if they find convincing evidence that more than 8% of the potatoes in the shipment have blemishes, the truck will be sent away to get another load from the supplier. A supervisor selects a random sample of 500 potatoes from the truck. An inspection reveals that 33 of the potatoes have blemishes. Carry out a significance test at the $\alpha = 0.05$ significance level. What should the producer conclude?