

AP Statistics

2019-03-02 7.1 Assignment

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Pg. 428-431 1,3,5,7,9,11,13,17,19,21-24

Question 1

Population: the people who signed the card

Sample: the 1000 people contacted

Statistic: The 210 people who had stopped smoking.

Parameter: 21% of the signers had stopped smoking

Question 3

Population: All points on the turkey

Sample: The four chosen points

Statistic: the readings for each sample

Parameter: the minimum temperature in the entire turkey

Question 5

2.5003 is a parameter, $P = 2.5003$

2.5009 is a statistic, $x = 2.5009$

Question 7

48% is a statistic, $x = 0.48$

52% is a parameter, $p = 0.52$

Question 9

Part A

Yes, this is a sampling distribution of \hat{p} . The expected value of p is 0.60 and the distribution shows this characteristic.

Part B

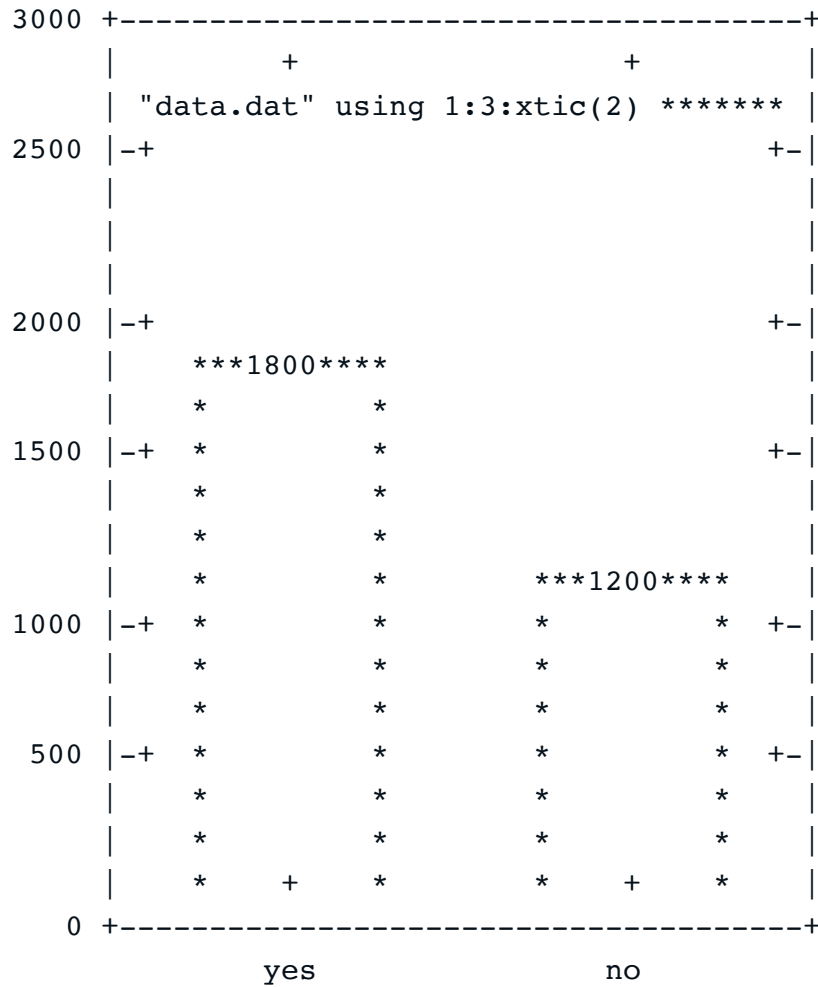
0.42, 0.43, 0.73, and 0.74

Part C

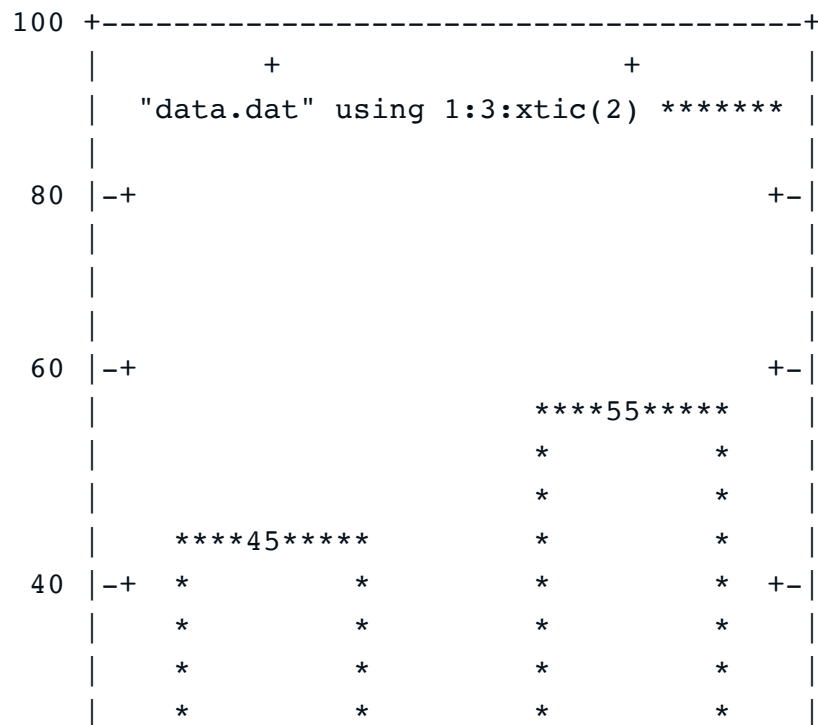
45% is within the sampling distribution; more samples should be conducted before a conclusion.

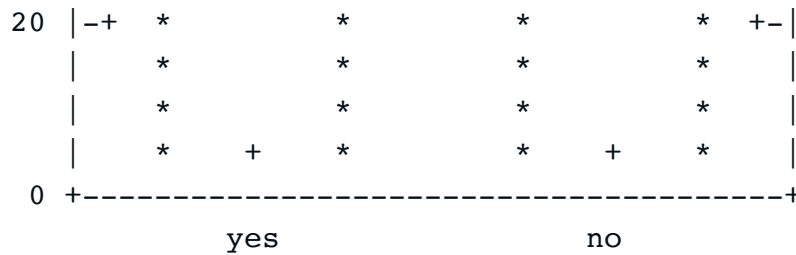
Question 11

Part A



Part B





Question 13

Part A

This approximate sampling distribution has medium bias and a large variance

Part B

This shows that the thermostat is significantly farther from the promised $\mu=50^\circ$ and stddev of 3°

Question 17

Part A

Yes - there will be higher variability in states with more tax returns as there is a greater population size.

Part B

No - the spread of variability should remain the same as it is a fixed proportion.

Question 19

Part A

B and C are both centered properly around the parameter.

Part B

B - it is both unbiased and low variability.

Question 21: **D**Question 22: **E**Question 23: **E**Question 24: **D**