Question 2

When crossing white and yellow summer squash, a genetic model predicts that 75% of resulting offspring will be white, 15% will be yellow and 10% will be green.

Below are the results from an experiment run on a random sample of 205 squash offspring.

Color	White	Yellow	Green
Number of Offspring	152	39	14

(1/1 point)

2a. Which method should we use to test if these data are consistent with the ratio of offspring colors predicted by the genetic model?

- (●) Chi Square Goodness of Fit Test ✔
- ( ) Chi Square Test of Independence
- ( ) Single Sample t-test
- ( ) Independent Samples t-test

You have used 1 of 1 submissions

(1/1 point)

Reading Check due May 03, 2016 at 17:00 UTC

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Pre-Lab
Pre-Lab due May 03, 2016 at 17:00 UTC

Lab
Lab due May 03, 2016 at 17:00 UTC

Problem Set
Problem Set due May 03, 2016 at 17:00 UTC

2b. What is the expected count of **white** offspring? *(Round to 2 decimal places.)*

153.75 ✔

Answer: 153.75

153.75

You have used 1 of 1 submissions

(1/1 point)

2c. What is the expected count of **yellow** offspring? *(Round to 2 decimal places.)*

30.75 ✔

Answer: 30.75

30.75

You have used 1 of 1 submissions

(1/1 point)

2d. What is the expected count of **green** offspring? *(Round to 2 decimal places.)*

20.50 ✔

20.50

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(1/1 point)

2e. Is the **sample size** condition met?

- (●) Yes ✔
- ( ) No

You have used 1 of 1 submissions

(1/1 point)

2f. What are the **degrees of freedom** and the **critical value** for this test, assuming α = 0.05?

Degrees of Freedom

2 ✔

Answer: 2

2

You have used 1 of 1 submissions

(1/1 point)

Critical Value for alpha=.05: *(Round to 2 decimal places.)*

5.99 ✔

Answer: 5.99

5.99

You have used 1 of 1 submissions

(1/1 point)

2g. What is the **Chi Square statistic** for this test? *(Round to 2 decimal places.)*

4.29 ✔

Answer: 4.29

4.29

You have used 1 of 1 submissions

(1/1 point)

2h. What is the appropriate outcome for this hypothesis test?

- Reject the null hypothesis

Fail to reject the null hypothesis ✔

You have used 1 of 1 submissions