

zoom in

*Testing Difference in Mean Weight Gain Among 4 Different Diets.* A study is developed to examine the effect of vitamin and milk supplements on infant weight gain.

- **Diet A:** a regular diet + the vitamin supplement
- **Diet B:** a regular diet + the special milk formula
- **Diet C:** control diet (no restrictions or special considerations)
- **Diet D:** a regular diet + the vitamin supplement + the special milk formula

Twenty infants are selected for the investigation and each is randomized to one of the four competing diet programs. Weight gains measured in pounds after 1 month on the assigned diet is listed in the table:

Diet A	Diet B	Diet C	Diet D
2	1.6	1.5	2.1
1.5	1.9	2	2.4
2.4	2.1	1.8	1.9
1.9	1.1	1.3	1.8
2.6	1.7	1.2	2.2

Test if there is a significance difference in the mean weight gains under the four different diets using a 5% significance level, i.e.,  $\alpha=0.05$ .

- 1
- 2
- 3

1 Input Critical Value. Round your answer to 2 decimal places.

1/1

3.24

Correct answer: 3.24

2 Input test statistic F. Round your answer to 2 decimal places.

1/1

2.92

Correct answer: 2.92

3 Choose your conclusion

1/1

- ☒ Fail to reject Ho
- ☐ Reject Ho

Correct answer: Fail to reject Ho