1. Consider the following scores that Miss Frizzle's students made on their Biology final exam.

51	57	59	62	64	65	65	68	71	72	74	78	78	78	79	80
83	83	85	86	87	87	87	89	89	90	91	93	93	94	95	97
97	98	98	99	100											

(a) You determine that these quantitative data would best be organized in bins with a width of ten to correspond to letter grades. Complete the following table with the appropriate **frequencies**, **relative frequencies**, and **cumulative relative frequencies**.

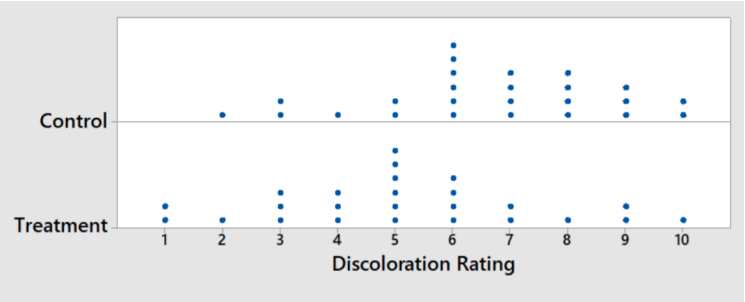
Student Scores	**Frequency**	**Relative Frequency**	**Cumulative Relative Frequency**
[50,60)			
[60,70)			
[70,80)			
[80,90)			
[90,100]			

(b) What proportion of students scored **less than a C** on the exam?

(c) A 60% or higher is required on the final exam to pass the course. What proportion of students are **eligible to pass**?

(d) Sketch a **stem and leaf plot** of the data. Include a title and key.

2. Dwight is interested in determining whether a preservative is effective in reducing discoloration in frozen beets from Schrute Farms. A sample of 50 ripe beets was chosen from the most recent crop, and each beet was prepared for freezing and placed in a Ziploc bag. The preservative was added to the beets in 25 randomly assigned bags, then all the bags were sealed and stored at 0 °C for a period of 4 months. At the end of this time, after the beets were thawed, Dwight's cousin Mose rated each beet's discoloration from 1 to 10, with a low score indicating little discoloration. The dot plots below show the distributions of the discoloration rating for the control and treatment groups.



(a) Identify the **explanatory variable**.

(b) Identify the **response variable**.

(c) How many beet bags received a rating of **3 or less** in the control group? In the treatment group?

(d) How many beet bags received a rating of **7 or more** in the control group? In the treatment group?

(e) Graphical summaries of data can give us a "picture" of the general trends within the data. Based on what you can see in the dot plots for Dwight's beet experiment, do you think the preservative was effective? **Justify** your answer.