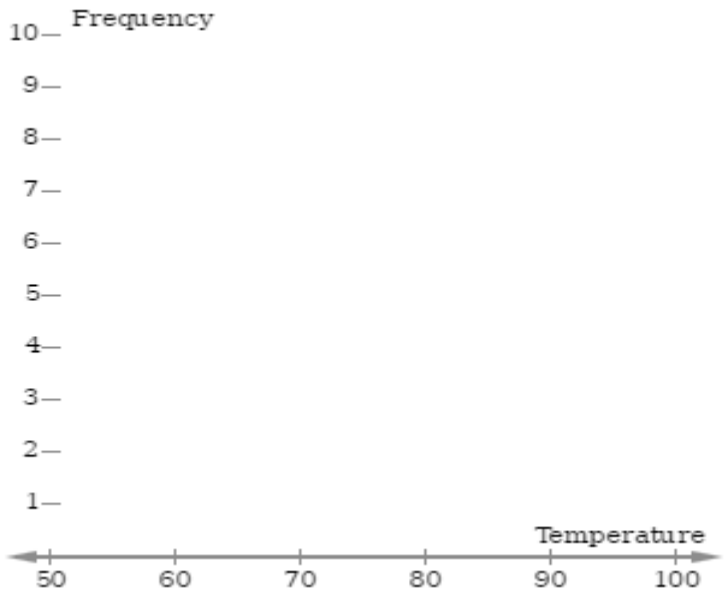
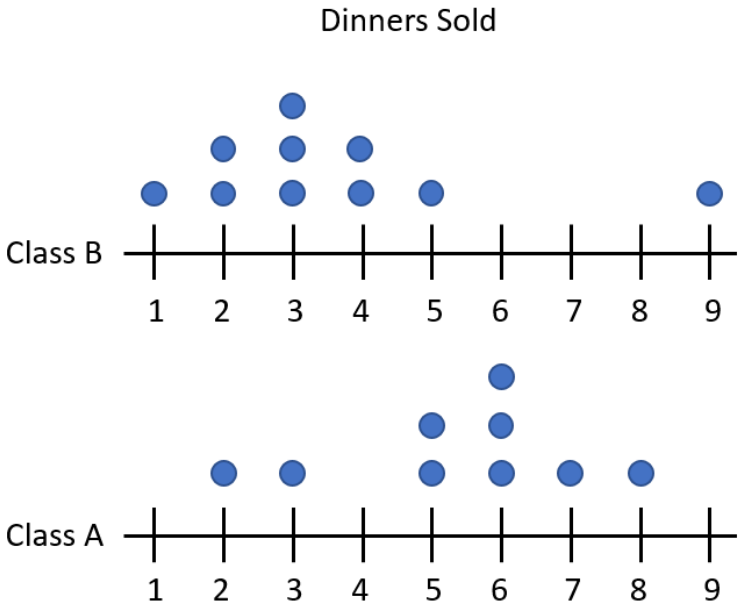
Part A: Statistics

1. Use the provided axes to **construct** a histogram of the data set.

   56, 58, 60, 61, 67, 72, 80, 85, 85, 89, 99



2. **Select** whether the statistic is greater for class A, class B, or impossible to determine.



	Greater for Class A	Greater for Class B	Impossible to Determine
Mean dinners sold	☐	☐	☐
Median dinners sold	☐	☐	☐
Range of dinner sold	☐	☐	☐

Part B: Outcomes, Events, and Sample Spaces [S-CP.1]

3. A high school Biology class has 32 students. Of these, 18 are in Algebra 1, 7 are in Geometry, 5 are in Algebra 2, and the remainder have no math class. Suppose that a person is selected at random from the class.

   Select True or False for each statement.

	True	False
The probability that the student is in Algebra is less than $\frac{1}{2}$.	☐	☐
The probability that the student is in Geometry or Algebra 2 is $\frac{12}{32}$.	☐	☐
The probability that the student doesn't have a math class is $\frac{1}{16}$.	☐	☐

Part C: Conditional Probabilities & Independence [S-CP.2, S-CP.3, S-CP.4]

4. A bag contains 6 green balls, 7 orange balls, and 2 red balls. **Determine** which is more likely to occur, **justifying** your reasoning.

   Scenario A: Randomly select a green ball from the bag, then selecting a second ball from the bag randomly and having it be red (without replacement).

   Scenario B: Randomly select an orange ball from the bag three times in a row, returning the ball to the bag after each attempt (with replacement).

5. A car rental company purchases 65% Toyotas and 35% Hondas. It is known that 4% of Toyotas have a production defect while 6% of Hondas have a production defect.

   Suppose one of the rental company's new vehicles is found to have a production defect. **Determine** the probability that it is a Honda. **Show** your work.