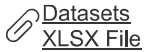1. Download the file "Datasets.xlsx" <u>Use the data in this file for the remainder of the assignment.</u>　　　　　　　　1 / 1 point

📎 Datasets
　 XLSX File

How many rows of data are included in the datasets given?

```
2000
```

✓ Correct

2. What is the covariance of Datasets A and B? Round to 2 decimal places.　　　　　　　　1 / 1 point

```
81420.52
```

✓ Correct

3. Which dataset pair has the highest covariance?　　　　　　　　1 / 1 point

○ A & B
○ B & C
◉ A & C
○ Cannot be determined with the information given.

✓ Correct

4. Which dataset pair has the strongest relationship?　　　　　　　　1 / 1 point

◉ A & B
○ B & C
○ A & C
○ Cannot be determined with the information given.

✓ Correct

5. Given that dataset A outcomes always occur before dataset B outcomes (and no other information), can you conclude that A causes B?　　　　　　　　0 / 1 point

◉ Yes, because all requirements for causation are met.
○ Yes, because covariance and correlation are both positive.
○ No, the variables are not correlated.
○ No, there is no control for external variables.

✗ Incorrect
　 See Lesson 3 - Causation

6. Create a histogram of Dataset A. Based on the shape of the distribution of outcomes, which of the following is most likely true?　　　　　　　　1 / 1 point
○ Higher values are much more likely to occur than lower values.
○ Negative values are much more likely to occur than positive values.
◉ All values in the range have a relatively equivalent chance of occurring, with a slightly lower probability on the high end.
○ No information can be used from this dataset.

✓ Correct

7. Create a histogram of Dataset B. Based on the shape of the distribution of outcomes, select the range below that appears to have the highest probability of occurrence.　　　　　　　　1 / 1 point
○ -729 to -350
○ -250 to 200
◉ 400 to 800
○ 1100 to 1500

8. Consider 4 sets of data: 1 / 1 point

   - set W: set of all real numbers over the range 1 to 100.
   - set X: set of all integers over the range 1 to 100.
   - set Y: set of all real numbers over the range 1 to 3.
   - set Z: set of all whole numbers over the range 1 to 10,000.

   Which set has the LEAST numbers?

   ○ set W
   ⦿ set X
   ○ set Y
   ○ set Z
   ○ Cannot be determined from the information given.

   ⊘ Correct
   See Lesson 5 - Statistical Distributions

9. Assume that datasets Y and Z have a Covariance of -500. Which of the following do you know to be true? Select all   1 / 1 point
   that apply.
   ☐ Datasets Y and Z have a strong relationship.
   ☑ Datasets Y and Z have a negative relationship.

   ⊘ Correct
   You must select all of the correct answers, and none of the incorrect answers.

   ☑ The results may be affected by the units of measurement.

   ⊘ Correct
   You must select all of the correct answers, and none of the incorrect answers.

   ☐ Datasets Y and Z have a causal relationship.

10. Select all the examples of Discrete data below: 1 / 1 point
   ☑ Number of Bees in a beehive

   ⊘ Correct
   You must select all of the correct answers, and none of the incorrect answers.

   ☐ Amount of Honey in a beehive
   ☑ Number of Fish in the sea

   ⊘ Correct
   You must select all of the correct answers, and none of the incorrect answers.

   ☐ Voltage level of a battery
   ☐ Your dog's weight
   ☐ Time you wake up in the morning
   ☑ Number of Languages spoken in the world

   ⊘ Correct
   You must select all of the correct answers, and none of the incorrect answers.

   ☑ Number of Voters for a particular candidate in an election

   ⊘ Correct
   You must select all of the correct answers, and none of the incorrect answers.

   ☐ Amount of Cooking oil used in recipe
   ☑ Number of Animals on a farm