**Sensors and Scatterplots Activity –
Class Data Sheet**

**Directions**

Record the data from your student data sheet in the table below. In the student column, circle “M” if you are a male and circle “F” if you are a female. This data will be used to create the scatterplots.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Student** | **BMI** | **Systolic Pressure Average** | **Diastolic Pressure Average** | **Pulse Rate Average** | **Height** |
| **1** | M F |  |  |  |  |  |
| **2** | M F |  |  |  |  |  |
| **3** | M F |  |  |  |  |  |
| **4** | M F |  |  |  |  |  |
| **5** | M F |  |  |  |  |  |
| **6** | M F |  |  |  |  |  |
| **7** | M F |  |  |  |  |  |
| **8** | M F |  |  |  |  |  |
| **9** | M F |  |  |  |  |  |
| **10** | M F |  |  |  |  |  |
| **11** | M F |  |  |  |  |  |
| **12** | M F |  |  |  |  |  |
| **13** | M F |  |  |  |  |  |
| **14** | M F |  |  |  |  |  |
| **15** | M F |  |  |  |  |  |
| **16** | M F |  |  |  |  |  |
| **17** | M F |  |  |  |  |  |
| **18** | M F |  |  |  |  |  |
| **19** | M F |  |  |  |  |  |
| **20** | M F |  |  |  |  |  |
| **21** | M F |  |  |  |  |  |
| **22** | M F |  |  |  |  |  |
| **23** | M F |  |  |  |  |  |
| **24** | M F |  |  |  |  |  |
| **25** | M F |  |  |  |  |  |
| **26** | M F |  |  |  |  |  |
| **27** | M F |  |  |  |  |  |
| **28** | M F |  |  |  |  |  |
| **29** | M F |  |  |  |  |  |
| **30** | M F |  |  |  |  |  |
| **31** | M F |  |  |  |  |  |
| **32** | M F |  |  |  |  |  |
| **33** | M F |  |  |  |  |  |
| **34** | M F |  |  |  |  |  |
| **35** | M F |  |  |  |  |  |

**Statistics for Class BMI Data (Choose 4 students at random)**

$$Class Mean BMI= \frac{Sum of student's BMIs}{Number of students }= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

|  |  |  |  |
| --- | --- | --- | --- |
| **Student #** | **BMI** | **(BMI – Class Mean BMI)** | **(BMI – Class Mean BMI)2** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

$$Variance= Sum of (BMI-ClassMean BMI)^{2}= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

$$Standard Deviation= \sqrt{Variance}= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

**Statistics for Class Pulse Rate Data (Choose the same 4 students as above)**

$$Class Mean Pulse Rate= \frac{Sum of student^{'}s Pulse Rates}{Number of students }= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

|  |  |  |  |
| --- | --- | --- | --- |
| **Student #** | **Pulse Rate (PR)** | **(PR – Class Mean PR)** | **(PR – Class Mean PR)2** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

$$Variance= Sum of (PR-ClassMean PR)^{2}= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

$$Standard Deviation= \sqrt{Variance}= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

**Statistics for Class Height Data (Choose the same 4 students as above)**

$$Class Mean Height= \frac{Sum of student^{'}s Heights}{Number of students }= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

|  |  |  |  |
| --- | --- | --- | --- |
| **Student #** | **Height** | **(Height – Class Mean Height)** | **(Height – Class Mean Height)2** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

$$Variance= Sum of (Height-ClassMean Height)^{2}= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$

$$Standard Deviation= \sqrt{Variance}= \\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$$