Math 1030

Spring 2021

Sample Test 1

Consider the following data showing weight in pounds from a sample of 3 year olds:

| 3 | 1 | 27 | 33 | 37 | 29 |
|---|---|----|----|----|----|
| 3 | 1 | 32 | 48 | 19 | 22 |
| 2 | 8 | 30 | 40 | 43 | 23 |

1) Write these numbers in ascending order:

2) Number of items: n=

3) Mean:
$$\bar{X} = \frac{\sum x}{n}$$
 =

4) Median =

5) Mode =

6) Midrange =
$$(High + Low)/2 =$$

8) Standard deviation: s =

9) Variation: $s^2 =$

A student received these grades where A=4, B=3, C=2, D=1, and F=0.

| Course | Credits: f | Grade: x | f * x |
|---------|------------|----------|-------|
| Art | 2 | 3 | |
| Biology | 5 | 3 | |
| Math | 3 | 2 | |
| Physics | 4 | 4 | |

10) Compute the student's GPA: GPA = $\frac{\sum f \cdot x}{\sum f}$ =

The heights in inches are collected from children in a day care center.

| 27 | 31 | 40 | 36 |
|----|----|----|----|
| 22 | 25 | 39 | 38 |
| 52 | 59 | 44 | 35 |

11) Arrange the heights in ascending order.

HINT: Middle value, or average of center two values.

HINT: The median of the values less than Q 2

HINT: The median of the values above Q 2

15) Low =
$$Q 0 =$$

18) What is the percentile of 36?

HINT: percentile of x = (number at or below x)/(number of items)

19) Draw a boxplot of this data.