Name **KEY**

Stats Review

Date _____

1) Measures of Central Tendency: GIVE A "TYPICAL" NUMBER FOR THE DATA

* **MEAN**
    * AVERAGE: ADD EVERYTHING UP AND DIVIDE BY HOW MANY THERE ARE.

* **MEDIAN**
    * MIDDLE: PUT THE NUMBERS IN ORDER & FIND THE MIDDLE (* IF NO MIDDLE, TAKE AVERAGE OF THE 2 IN THE MIDDLE)

* **MODE**
    * THE MOST COMMON NUMBER(S)

Find the mode, median, and mean for each data set.

2)   Hours Slept

8.5	6	8.25	6.25	5.25
7.25	7	6.75	7.25	7.75

MODE:

$$\boxed{7.25}$$

MEDIAN:

5.25, 6, 6.25, 6.75,
7.25, 7.25, 7.75,
8.25, 8.5

$$\frac{7.25 + 7.25}{2}$$

$$= \frac{14.5}{2}$$

$$= \boxed{7.25}$$

MEAN:

8.5 + 6 + 8.25 + 6.25 + 5.25 + 7.25 + 7 + 6.75 + 7.25 + 7.75 = $\boxed{70.25}$

$$\frac{70.25}{10} = \boxed{7.025}$$

3) # Words in Book Titles

2	3	2	2	3	2	3	1
6	1						

MODE:
$\boxed{2}$

MEDIAN:
1,1,2,2,②,②,3,3,3,6

$$\frac{2+2}{2} = \frac{4}{2} = \boxed{2}$$

MEAN:
$$\frac{2+3+2+2+3+2+3+1+6+1}{10} = \boxed{2.5}$$

4) Average Time to Maturity

Plant	Days	Plant	Days
Scallion	120	Swiss Chard	60
Honeydew	80	Red Onion	95
Okra	55	Peanut	120
Eggplant	74	Beefsteak Tomato	80
Cucumber	58	Kale	60
Pumpkin	120		

MODE: $\boxed{120}$

MEDIAN:
55, 58, 60, 60, 74, 80, 80, 95, 120, 120, 120
$\boxed{80}$

MEAN:
$$55+58+60+60+74+80+80+95+120$$
$$+120+120 = (922)$$
$$922 \div 11 = \boxed{83.8\overline{1}}$$

5) Basketball Tournament

School	Appearances
Campbell	1
Trinity	1
Colorado	13
Idaho	4
Texas	32
Western Michigan	4
South Alabama	8
Baylor	9
Michigan	21

MODE: $\boxed{1 \& 4}$

MEDIAN: 1,1,4,4,⑧,9,13,21,32
$\boxed{8}$

MEAN:
$$\frac{1+1+13+4+32+4+8+9+21}{9}$$
$$= \frac{93}{9}$$
$$= \boxed{10.\overline{3}}$$

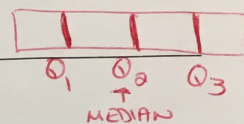6) Measures of Spread: DESCRIBES HOW SPREAD OUT THE DATA IS.

* RANGE

  * BIGGEST – SMALLEST

* QUARTILES

  * DIVIDES THE DATA INTO 4 EQUAL PARTS.
    PUT THE NUMBERS IN ORDER FIRST!

    $Q_1 \quad Q_2 \quad Q_3$

    MEDIAN

* INTER-QUARTILE RANGE (IQR)

  * $Q_3 - Q_1$

Find the range, lower quartile, upper quartile, and interquartile range for each data set.

7) Injuries Due to Distracted Driving per Month

6,134	9,688	11,122	10,896
5,837	9,073	7,503	5,779
7,355	11,245	7,882	

5,779   5,837   6,134   7,355   7,503   7,882   9,073   9,688   10,896   11,122   11,245

RANGE: 11,245 – 5779 = $\boxed{5466}$ IQR: 10,896 – 6134 = $\boxed{4762}$

Q_1: $\boxed{6134}$ → LOWER QUARTILE

Q_2: 7,882

Q_3: $\boxed{10,896}$ → UPPER QUARTILE

8) Single Family Home Prices

146,600	157,700	131,100	128,800
144,200	136,600	142,800	146,600
152,800	152,900	133,000	

128,800   131,100   133,000   136,600

142,800   (144,200)   146,600   146,600

152,800   152,900   157,700

RANGE: $157,700 - 128,800 = \boxed{28,900}$

$Q_1: \boxed{133,000}$

$Q_2: 144,200$

$Q_3: \boxed{152,900}$

IQR: $152,900 - 133,000 = \boxed{19,900}$

9) Basketball Tournament Champions

School	Times Won
Duke	5
North Carolina	5
Georgetown	1
UTEP	1
Kentucky	8
Arizona	1
Villanova	1
Michigan State	2
Wyoming	1

1, 1, 1, 1, (1), 2, 5, 5, 8

RANGE: $8 - 1 = \boxed{7}$

$Q_1: \boxed{1}$

$Q_2: 1$

$Q_3: \boxed{5}$

IQR: $5 - 1 = \boxed{4}$

10) Sales Tax

State	Percent
New Hampshire	0
Massachusetts	6.25
New Jersey	7
Washington	6.5
Oregon	0
Iowa	6
North Carolina	4.75
Wyoming	4
Colorado	2.9

0, 0, 2.9, 4, (4.75), 6, 6.25, 6.5, 7

RANGE: $7 - 0 = \boxed{7}$

$Q_1: \dfrac{0 + 2.9}{2} = \dfrac{2.9}{2} = \boxed{1.45}$

$Q_2: 4.75$

$Q_3: \dfrac{6.25 + 6.5}{2} = \dfrac{12.75}{2} = \boxed{6.375}$

IQR: $6.375 - 1.45 = \boxed{4.925}$