

NAME: \_\_\_\_\_

## **Practice Exam 1**

**Problem 1**

**Problem 2**

**Problem 3**

**Problem 4**

**Problem 5**

**Problem 6**

## Problem 1:

They are from the HWs

## Problem 2:

Response	Frequency
every day	969
a few times a week	452
once a week	261
less than once a week	196
Never	76

(a) If it is possible compute the mode. If not possible say not possible.

(b) If it is possible compute the median. . If not possible say not possible.

(c) If it is possible compute the mean. . If not possible say not possible.

## **Problem 2**

We have the following observations:

9, 8, 6, 3.1, 2.6, 1, 3, 6.3, 5, 7, 1.2

- (a) Compute the sample mean.
- (b) Compute the sample variance.
- (c) Compute the sample standard deviation.

## **Problem 3**

We have the following observations: They are the scores for a math exam in one class.

8,23,4,36,0,28,21,17,11,65,34,5,31,18,16,30,39,13,19,40.

- (a) Compute the five number summary
- (b) Make the boxplot.

## **Problem 4**

		Accident Fatal		
		Yes	No	
Seat Belt	Yes	30	212	242
	No	33	52	85
		63	264	327

- (a) Compute the risk difference
- (b) Compute the risk ratio.
- (c) Compute the odd ratio.

## Problem 5

We have the following observation:

$(x, y) = (1.1, 0.4), (0.4, 1.2), (2.1, 1.1), (0.5, 0.5), (0.2, 1.2), (1.0, 1.0), (1.2, 1.4).$

- (a) Compute the covariance. 0.24331
- (b) Compute the correlation coefficient.  $r = 0.0589558$
- (c) Compute the least square equation.  $y = 0.034642x + 0.939261$