

1. Page 12 Problem 1:

- (a) New York Times, Wall Street Journal, The Daily Reflector, Los Angeles Times
- (b) Apple, Microsoft, IBM, AMD
- (c) Jordan Paldino, Nathan Chen, Mathew Blizzard, Martin Shank
- (d) 4.0, 2.7, 3.0, 1.9

2. Question 2

	000.	000
	32	5 5
	33	
	34	4
	35	6 6 9 9
(a)	36	3 4 4 6 9
	37	0 3 3 4 5
	38	9
	39	2 3 4 7
	40	2 3
	41	
	42	4

(b) Mean=

$$\frac{\sum_{i=1}^n x_i}{n} = \frac{9638}{26} = 370.69$$

Median=371.5

- (c) The Median could not be affected by increasing the value. This is because the median value is determined by the location relative to the other values, and since 424 is the largest value, the median cannot be increased.

Decreasing the value, however, the largest value could be decreased by 51. This is because this brings the largest point down to the value which is factored into the median.

- (d) $\tilde{x} = 370.69$ seconds. In order to translate the value into seconds, we take the value we solved for and divide by

3. Page 44 Problem 45:

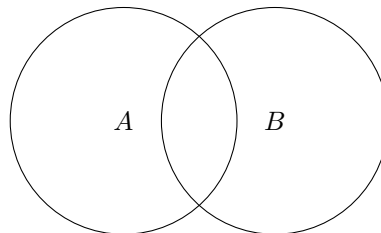
$$(a) \text{ Variance} = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n} = 1933.11$$

$$\text{Deviation} = \sqrt{\text{Variance}} = 43.97$$

- (b) In order to find the value in hours, we must first consider the units which the above values are in. The standard variance is in min^2 , meaning that in order to convert this value into hours, we must divide by 60^2 , or 3600, making the standard variation .54 hours. We can simply divide the deviation by 60 since the units are minutes, giving us .73 hours.

4. Page 57 Problem 3

- (a) The outcomes 1 success and 2 success 3 failure, 1 success 2 failure 3 success are in A.
- (b) The outcomes 1 success 2 success 3 failure, and 1 success 2 failure 3 success, and 1 success 2 success 3 success are in B.
- (c) All values in B are in C
- (d) C': 1 failure, 2 failure, 3 failure, and 1 failure, 2 failure, 3 success, and 1 failure 2 success 3 success, and 1 failure, 2 success, 3 failure, and 1 success 2 failure 3 failure.
 $A \cup C$: The outcomes 1 success and 2 success 3 failure, 1 success 2 failure 3 success.
 $A \cap C$: The outcomes 1 success and 2 success 3 failure, 1 success 2 failure 3 success.
 $B \cup C$: The outcomes 1 success 2 success 3 failure, and 1 success 2 failure 3 success, and 1 success 2 success 3 success.
 $B \cap C$: The outcomes 1 success and 2 success 3 failure, 1 success 2 failure 3 success.



5.