

NAME _____

HW # 15

Directions: If necessary, round all values to the tenth.

1. Find the mean absolute deviation for the set {34, 32, 30, 27, 38}

Data	Data - Mean	Data - Mean
34	$34 - 32.2 = 1.8$	1.8
32	$32 - 32.2 = -0.2$	0.2
30	$30 - 32.2 = -2.2$	2.2
27	$27 - 32.2 = -5.2$	5.2
38	$38 - 32.2 = 5.8$	5.8

M.A.D. = $\frac{3.04}{5}$ (rounded to tenth: 3.0)

2. Samantha wanted to calculate the mean absolute deviation of the speed of cars driving by on a busy highway. She watched the sign showing speed as the cars drove by. The five cars she recorded registered speeds of 65, 72, 76, 68, 79.

- a. Help Samantha calculate the mean absolute deviation of these cars. (Hint: make your own table to calculate).

Mean = 72

Data	Data - Mean	Data - Mean
65	$65 - 72 = -7$	7
72	$72 - 72 = 0$	0
76	$76 - 72 = 4$	4
68	$68 - 72 = -4$	4
79	$79 - 72 = 7$	7

M.A.D. = 4.4

- b. Write a sentence stating the meaning of the M.A.D. that Samantha calculated.

On average, Each data point is 4.4 away from the mean.

3. Robert was trying to find the mean absolute deviation of the attendance at the town hall meetings. He found the totals {6, 8, 8, 12, 16}. Help Robert calculate the mean absolute deviation.

Data	Data - Mean	Data - Mean
6	$6 - 10 = -4$	4
8	$8 - 10 = -2$	2
8	$8 - 10 = -2$	2
12	$12 - 10 = 2$	2
16	$16 - 10 = 6$	6

M.A.D. = 3.2