1. **Problem**
From a very large population, a small sample of measurements was taken.

57	56	44	41	50

Please calculate the average absolute deviation using the following formula:

$$\text{AAD} = \frac{\sum |x - \bar{x}|}{n}$$

Solution
We fill out the table column by column.

x	$x - \bar{x}$	$\lvert x - \bar{x}\rvert$
57	7.4	7.4
56	6.4	6.4
44	-5.6	5.6
41	-8.6	8.6
50	0.399999999999999	0.4
========	========	========
$\sum x = 248$		$\sum \lvert x - \bar{x}\rvert = 28.4$
$\bar{x} = 49.6$		

We are ready for the formula.

$$s = \frac{\sum |x - \bar{x}|}{n}$$

$$= \frac{28.4}{5}$$

$$= \boxed{5.68}$$

2. **Problem**
From a very large population, a small sample of measurements was taken.

189	183	196	175	180	190	175

Please calculate the (Bessel corrected) sample standard deviation using the following formula:

$$s = \sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

Solution
We fill out the table column by column.

x	$x-\bar{x}$	$(x-\bar{x})^2$
189	5	25
183	-1	1
196	12	144
175	-9	81
180	-4	16
190	6	36
175	-9	81
========	========	========
$\sum x = 1288$		$\sum(x-\bar{x})^2 = 384$
$\bar{x} = 184$		

We are ready for the formula.

$$s = \sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

$$= \sqrt{\frac{384}{7-1}}$$

$$= \sqrt{64}$$

$$= \boxed{8}$$