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

70	36	59	50	28

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	$x - \bar{x}$	$\lvert x - \bar{x}\rvert$
70	21.4	21.4
36	-12.6	12.6
59	10.4	10.4
50	1.4	1.4
28	-20.6	20.6
========	========	========
$\sum x = 243$		$\sum \lvert x - \bar{x}\rvert = 66.4$
$\bar{x} = 48.6$		

We are ready for the formula.

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

$$= \frac{66.4}{5}$$

$$= \boxed{13.28}$$

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

146	146	140	143	140

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	$x - \bar{x}$	$(x - \bar{x})^2$
146	3	9
146	3	9
140	-3	9
143	0	0
140	-3	9
========	========	========
$\sum x = 715$		$\sum (x - \bar{x})^2 = 36$
$\bar{x} = 143$		

We are ready for the formula.

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

$$= \sqrt{\frac{36}{5 - 1}}$$

$$= \sqrt{9}$$

$$= \boxed{3}$$