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

110	117	120	115	112

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	$x - \bar{x}$	$\lvert x - \bar{x}\rvert$
110	-4.8	4.8
117	2.2	2.2
120	5.2	5.2
115	0.200000000000003	0.2
112	-2.8	2.8
========	========	========
$\sum x = 574$		$\sum \lvert x - \bar{x}\rvert = 15.2$
$\bar{x} = 114.8$		

We are ready for the formula.

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

$$= \frac{15.2}{5}$$

$$= \boxed{3.04}$$

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

65	67	67	65	66

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	$x - \bar{x}$	$(x - \bar{x})^2$
65	-1	1
67	1	1
67	1	1
65	-1	1
66	0	0
========	========	========
$\sum x = 330$		$\sum (x - \bar{x})^2 = 4$
$\bar{x} = 66$		

We are ready for the formula.

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

$$= \sqrt{\frac{4}{5 - 1}}$$

$$= \sqrt{1}$$

$$= \boxed{1}$$