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

100	102	103	101

   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	$x - \bar{x}$	$|x - \bar{x}|$
100	-1.5	1.5
102	0.5	0.5
103	1.5	1.5
101	-0.5	0.5
========	========	========
$\sum x = 406$		$\sum |x - \bar{x}| = 4$
$\bar{x} = 101.5$		

   We are ready for the formula.

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

   $$= \frac{4}{4}$$

   $$= \boxed{1}$$

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

| 163 | 165 | 164 | 165 | 163 |

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	$x - \bar{x}$	$(x - \bar{x})^2$
163	-1	1
165	1	1
164	0	0
165	1	1
163	-1	1
=======	=======	=======
$\sum x = 820$		$\sum(x - \bar{x})^2 = 4$
$\bar{x} = 164$		

We are ready for the formula.

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

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

$$= \sqrt{1}$$

$$= \boxed{1}$$