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

170	187	168	173	172	174

   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	$x - \bar{x}$	$|x - \bar{x}|$
170	-4	4
187	13	13
168	-6	6
173	-1	1
172	-2	2
174	0	0
========	========	========
$\sum x = 1044$		$\sum |x - \bar{x}| = 26$
$\bar{x} = 174$		

   We are ready for the formula.

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

   $$= \frac{26}{6}$$

   $$= \boxed{4.3333333}$$

2. **Problem**

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

192	191	206	204	202

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	$x - \bar{x}$	$(x - \bar{x})^2$
192	-7	49
191	-8	64
206	7	49
204	5	25
202	3	9
========	========	========
$\sum x = 995$		$\sum(x - \bar{x})^2 = 196$
$\bar{x} = 199$		

We are ready for the formula.

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

$$= \sqrt{\frac{196}{5 - 1}}$$

$$= \sqrt{49}$$

$$= \boxed{7}$$