

Standard deviations are rounded to two decimal places more than the initial data.

Practice Problems. Find the standard deviation by hand for the following small data sets. Verify your answer in your calculator.

1. 7, 1, 4, 5, 2, 7
2. 4, 7, 12, 13, 9, 8, 4
3. 39, 42, 14, 48, 14, 2, 24, 13

x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	
7	2.67	7.1289	
1	-3.33	11.0889	
4	-1.33	1.7689	
5	.67	.4489	
2	-2.33	5.4289	
7	2.67	7.1289	
$\bar{x} = 4.33$		$s^2 = \sum \frac{(x_i - \bar{x})^2}{n-1}$ 6.2668	$s = 2.50$

x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	
4	-4.14	17.1396	
7	-1.14	1.2996	
12	3.86	14.8996	
13	4.86	23.6196	
9	.86	.7396	
8	-.14	.0196	
4	-4.14	17.1396	
$\bar{x} = 8.14$		$s^2 = \sum \frac{(x_i - \bar{x})^2}{n-1}$ 12.4762	$s = 3.53$

x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	
39	14.5	210.25	
42	17.5	306.25	
14	-10.5	110.25	
48	23.5	552.25	
14	-10.5	110.25	
2	-22.5	506.25	
24	-.5	.25	
13	-11.5	132.25	
$\bar{x} = 24.5$		$s^2 = \sum \frac{(x_i - \bar{x})^2}{n-1}$ 275.43	$s = 16.60$