Name:

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MATH 1342
Quiz 2.4

Two dairies provide raw milk to a distributor for bottling. The distributor conducts a survey of how long (in days) it takes for the bottled milk to spoil. They use 15, one gallon jugs of milk from each of the dairies and measure how many days (x) the refrigerated milk takes to spoil. The data for each dairy is:

Dairy 1

x	21	22	22	21	20	19	18	21	21	19	22	20	21	20	23
$x - \bar{x}$	$\frac{1}{3}$	$\frac{4}{3}$	$\frac{4}{3}$	$\frac{1}{3}$	$-\frac{2}{3}$	$-\frac{5}{3}$	$-\frac{8}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$-\frac{5}{3}$	$\frac{4}{3}$	$-\frac{2}{3}$	$\frac{1}{3}$	$-\frac{2}{3}$	$\frac{7}{3}$

Dairy 2

x	21	17	18	21	20	19	18	23	21	19	22	20	19	20	24
x^2	441	289	324	441	400	361	324	529	441	361	484	400	361	400	576

(1) Find the mean and the range for each data set.

(2) Calculate the sample variance (s^2) and standard deviation (s) for dairy 1 using the formula that is appropreate for the data given in the chart.

(3) Calculate the sample variance (s^2) and standard deviation (s) for dairy 2 using the formula that is appropreate for the data given in the chart.