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

1. Match the standard deviation value with its graph.
(i) $\sigma=0$
a)

(ii) $\sigma=10$
b)

(iii) $\sigma=1$
c)

(iv) $\sigma=3$
d)

2. Two high schools kept a record of the number of students who received BRAVOS each day. Over a 5 day period, the following results were obtained:

School A: $4 \begin{array}{llllllllllll}4 & 8 & 13 & 2 & 5 & \text { School B: } 9 & 6 & 11 & 10 & 8\end{array}$
a) Determine the standard deviation for each school.

School A

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

School B

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

b) Which school has the greatest variation? Why?
3. Angela conducted a survey to determine the number of hours per week that Grade 11 students at her school play video games. For the male students she already completed her calculations and got a mean of 12.84 hrs and a standard deviation of 2.16 hrs.
a) Help Angela finish the mean and standard deviation for the female students. Her survey results are:
$\begin{array}{llllllllll}4 & 6 & 15 & 10 & 3 & 10 & 6 & 5 & 12 & 8\end{array}$
b) Compare the results of the male and female students.

