

Standard Deviation:

$$S = \sqrt{\frac{\sum (x_i - \text{mean})^2}{N}}$$

where N is the total **number of samples**, mean is the global mean.

For each node, after the global mean is received, you could calculate as below: (that's what sumDifferences function does)

$$\sum (x_i - \text{mean})^2$$

where xi is every element from the array in that node, and mean is the global mean.

Assuming initialized array values range in 0 and 50. Your mean value should close to 25, and the standard deviation should close to 14 or 13.