

## Algorithms for Standard Deviation

### 1. Pseudo code of Traditional (Iterative) approach

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**Algorithm 1** Traditional Algorithm

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```
1: procedure STANDARDDEVIATION( )
2:   Sum  $\leftarrow$  0
3:   Mean  $\leftarrow$  0
4:   Var  $\leftarrow$  0
5:   SD  $\leftarrow$  0
6:   Number  $\leftarrow$  0
7:   Size  $\leftarrow$  Array.count()
8:   Sum  $\leftarrow$  Sum + Sum
9:   for i  $\leftarrow$  0, size do
10:    Sum + = Array
11:  end for
12:  SD = squareRoot(SD/Size)
13:  Return SD
14: end procedure
```

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**Algorithm 2** Traditional Algorithm

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Pseudo code of Traditional (Iterative) approach

```
1: procedure STANDARDDEVIATION( )
2:    $Sum \leftarrow 0$ 
3:    $Mean \leftarrow 0$ 
4:    $Var \leftarrow 0$ 
5:    $SD \leftarrow 0$ 
6:    $Number \leftarrow 0$ 
7:    $Size \leftarrow Array.count()$ 
8:    $Sum \leftarrow Sum + Sum$ 
9:   for  $i \leftarrow 0, size$  do
10:     $Sum+ = Array$ 
11:   end for
12:    $SD = squareRoot(SD/Size)$ 
13:   Return SD
14: end procedure
```

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