

```
1 function [digit_matrix s] = test_data_magnitude(data_matrix,N)
2
3     sub_matrix = data_matrix(:,1:N);
4     temp = (sub_matrix == 0); %we find all zero entries
5     sub_matrix = sub_matrix + temp;
6     digit_matrix = log10(abs(sub_matrix));
7     s = std(digit_matrix(:));
8
9 endfunction
```