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# ECE-503 Prelab 4

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- 1 What are the sizes of the normalized training and testing data sets and the associated labels?**

Train data -  $30 \times 480$ , Train label -  $1 \times 480$ , Test data -  $30 \times 89$ , Test label -  $1 \times 89$

- 2 Suppose you have applied the GD algorithm to minimize  $f(\hat{w})$  in (E4.2) and obtained a minimizer  $w^*$ ,  $b^*$ , what are the sizes of  $w^*$  and  $b^*$ ?**

$w^* = 30 \times 1$ ,  $b^* = 1 \times 1$

- 3 What are sizes of  $\hat{x}_n$  and  $x_n$**

$\hat{x}_n = 481 \times 1$ ,  $x_n = 480 \times 1$