Nearest means algorithm

Input:
1. Training data $T$ of dimension $n$ by $m$ ($n$ rows and $m$ columns)
2. Training labels $L$. Each label $l_i$ is an integer indicating the class that row $i$ belongs to.
3. Test data $E$ of dimension $n'$ by $m$

Algorithm:
1. Training: Compute the mean $m_j$ of each class.
2. Prediction: Assign point $x'_i$ to class $j$ if $x'_i$ is closest to the mean of class $j$. In other words

\[ class(x'_i) = \text{argmin}_j(\|m_j - x'_i\|) \]