Nanoquiz Week 1

The questions below are due on Thursday February 15, 2018; 09:50:00 AM.

Nanoquiz Instructions

Nanoquizzes are just like any other tutor exercise, except that they are timed, and that some questions allow a limited number of submissions. When the timer hits zero, you will be prevented from making any further submissions to the nanoquiz, and the answers will be displayed, so **please make sure you have submitted something before that occurs**.

Note that you are free to use any materials you want (electronic or otherwise, including notes, calculators, Python, and Wikipedia) during the nanoquiz, but you are **not** allowed to converse with other humans (including through text message, email, etc).

1) POSITIVE

Consider a linear classifier through the origin in 2 dimensions, specified by $\theta = [3, -4]^T$. Which of the following points are classified as positive?

1. $[1, -1]^T$
2. $[1, 1]^T$
3. $[-1, -1]^T$

Enter a Python list with a subset of the numbers 1, 2, 3.

Save | Submit | View Answer **0.00%**

As staff, you are always allowed to submit. If you were a student, you would see the following:

You have infinitely many submissions remaining.

2) DISTANCES

For the same θ and the points given in the previous question give the signed distances from the points to the hyperplane.

Enter a Python list of 3 floats, you can enter Python numerical expressions for the values, e.g. [3/4, 2*6, 3*0.5]

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3) SEPARABLE

Consider the following data set of four 2D points (a 2 by 4 array) and corresponding labels (1 by 4 array): $X = [[2, 2, 1, 3], [2, 1, 2, 3]], y = [[+1, -1, -1, +1]]$.

1. Enter the components of θ for a separator through the origin (no offset) for this data set.

Enter a Python list of the form `[a, b]` or `'none'` if none exists

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You have infinitely many submissions remaining.

2. Enter the components of θ followed by θ_0 for a separator (with offset).

Enter a Python list of the form `[a, b, c]` or `'none'` if none exists

Save Submit View Answer **0.00%**

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You have infinitely many submissions remaining.