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2. Review and the Lambda parameter

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Exercises due Feb 22, 2023 08:59 -03 Completed

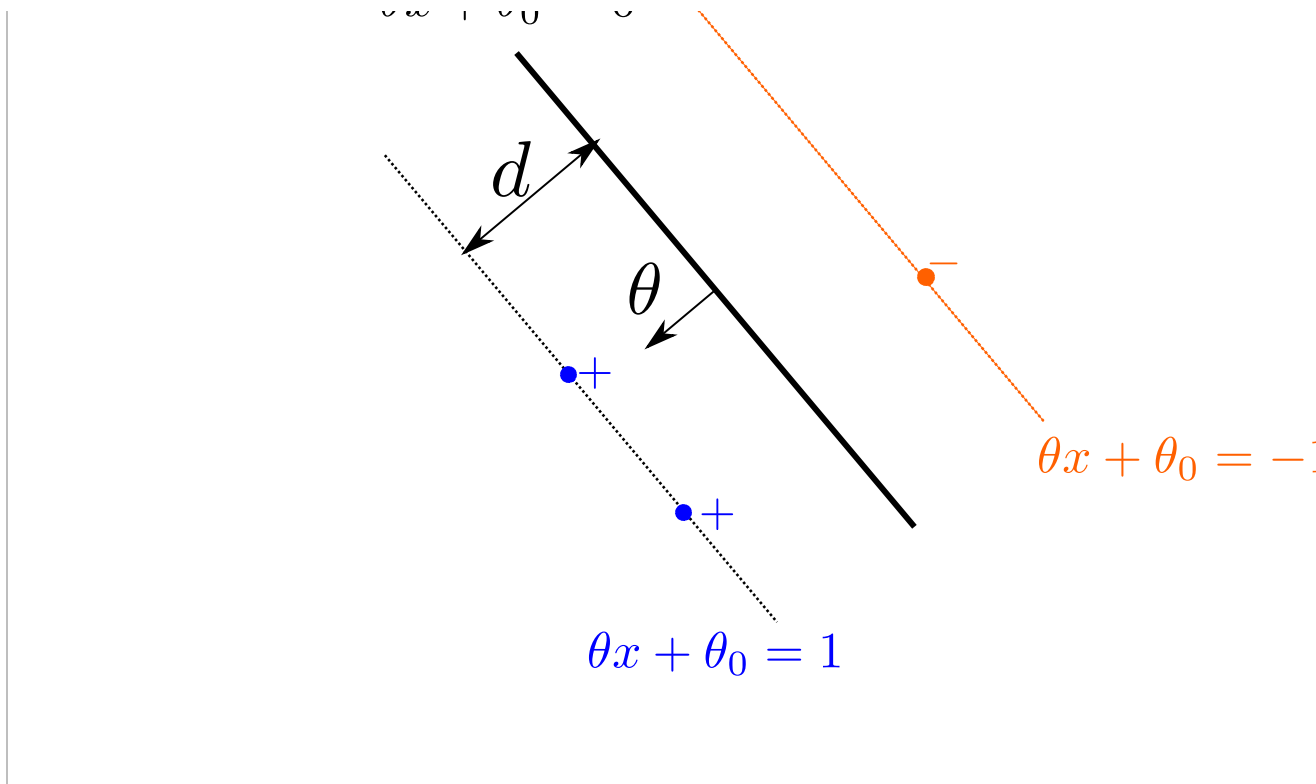
Introduction and Review**Video** [Download video file](#)**Transcripts** [Download SubRip \(.srt\) file](#) [Download Text \(.txt\) file](#)**Distance from a line to a point in terms of components**

1.0/1 point (graded)

In a 2 dimensional space, a line L is given by $L : ax + by + c = 0$, and a point P is given by $P : (x_0, y_0)$. What is d , the shortest distance between L and P ? Express d in terms of a, b, c, x_0, y_0 .

 STANDARD NOTATION**Submit**

You have used 1 of 3 attempts



- ☐ decreases
- ☒ increases
- ☐ converges to

Hint: You can answer with your intuition in this question. To see whether θ converges to a value, consider a 1D setting where we are working in 1 dimension with just two points with labels $+1$ and -1 and assume that θ is large enough where it dominates the bias term θ_0 and pushes θ_0 close enough to 0 where all points are margin violators.

Submit

You have used 1 of 2 attempts

Your answers were previously saved. Click 'Submit' to grade them.

Discussion

Topic: Unit 1. Linear Classification and

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	<u>How $d = 1/\ \theta\$?</u>
✓	<u>link between lambda and norm of theta</u> To me it is not yet really clear why increasing lambda should vary the distance of the margin boundary. To va
💬	<u>Error</u> Please what is wrong with my answer $d = \text{abs}((a \cdot x_0 + b \cdot y_0 + c)) / (\text{sqrt}(a^2 + y^2))$
✓	<u>How to write x_0, y_0</u> Hi all, anyone know how to write x_0 and y_0 as in question 1 of this section? It's not clear from the guide. Not
✓	<u>how do the values of the loss function are replace ?</u> Hi all, I have a question about how do the values of the loss function are replaced ? in the answer of the ques
✓	<u>Linearly shrink theta?</u> Couldnt we achieve a smaller norm of theta simply by linearly scaling it down? Like if theta is (5,10) then wou
💬	<u>Distance</u> A distance should be always positive, I tried to wrap the nominator on absoulte value but the system didn't a

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