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3. Normal vectors to lines

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Problem Set A due Aug 18, 2021 20:30 IST Completed

2A-5

1.0/1 point (graded)

Find a unit vector normal to the line $x + 2y = 2$.

(Enter the vector in the form `[a,b]`. That is surround your vector by square brackets, and separate entries by a comma. Note that the entries of your vector must be numbers.)

[1/sqrt(5),2/sqrt(5)] ✔ **Answer:** [1/sqrt(5),2/sqrt(5)]

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Solution:

We saw in lecture that a vector perpendicular to the line $x + 2y = 2$ is given by $\langle 1, 2 \rangle$. Normalizing this (dividing by its length) gives the unit normal vector

$$\langle \frac{1}{\sqrt{5}}, \frac{2}{\sqrt{5}} \rangle.$$

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Answers are displayed within the problem

3. Normal vectors to lines

Topic: Unit 2: Geometry of Derivatives / 3. Normal vectors to lines

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I have tried 2 ways but I get this one wrong for some reason 4

1. First method was the hidden dot product 2. Second method was to calculate the derivatives I get the same answer for both but th...

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