

# MAC 2313 Quiz 1

NAME: \_\_\_\_\_

Thursday, 9/12/2019

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**Problem 1.** Find the angle between the given vectors  $\mathbf{a}$  and  $\mathbf{b}$ , where  $\mathbf{a} = \langle 4, 4, -2 \rangle$  and  $\mathbf{b} = \langle 4, -1, 2 \rangle$ . Leave your answer in the form of  $\theta = \cos^{-1} x$ . (5 pts)

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**Problem 2.** Find an equation for the sphere where one of its diameters has endpoints at  $(2, 1, 4)$  and  $(4, 3, 10)$ . (5 pts)

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**Problem 1.** Find the angle between the given vectors  $\mathbf{a}$  and  $\mathbf{b}$ , where  $\mathbf{a} = \langle 1, 2, -2 \rangle$  and  $\mathbf{b} = \langle 4, 0, -3 \rangle$ . Leave your answer in the form of  $\theta = \cos^{-1} x$ . (5 pts)

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**Problem 2.** Find an equation for the sphere where one of its diameters has endpoints at  $(5, 1, 5)$  and  $(7, 3, 9)$ . (5 pts)