

# Paper Homework No. 03 (Spring 2018)

## PHYS 205A: University Physics

Due date: Friday, 2018 Feb 2, 12.00pm, in class

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(Name)

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(Signature)

### Instructions

1. Your submission should include only this page. Other forms of submissions will not be accepted. Please print this page, and write your solution on the back side.
2. Show your thought process in detail and organize it clearly.
3. Make sure your answer has the correct units and the right number of significant digits.

### Question

If three vectors satisfy the relations

$$\vec{\mathbf{A}} - \vec{\mathbf{B}} = 2\vec{\mathbf{C}}, \quad (1)$$

$$\vec{\mathbf{A}} + \vec{\mathbf{B}} = 4\vec{\mathbf{C}}, \quad (2)$$

where

$$\vec{\mathbf{C}} = 3\hat{\mathbf{i}} + 4\hat{\mathbf{j}}, \quad (3)$$

then what are  $\vec{\mathbf{A}}$  and  $\vec{\mathbf{B}}$  in component form?