

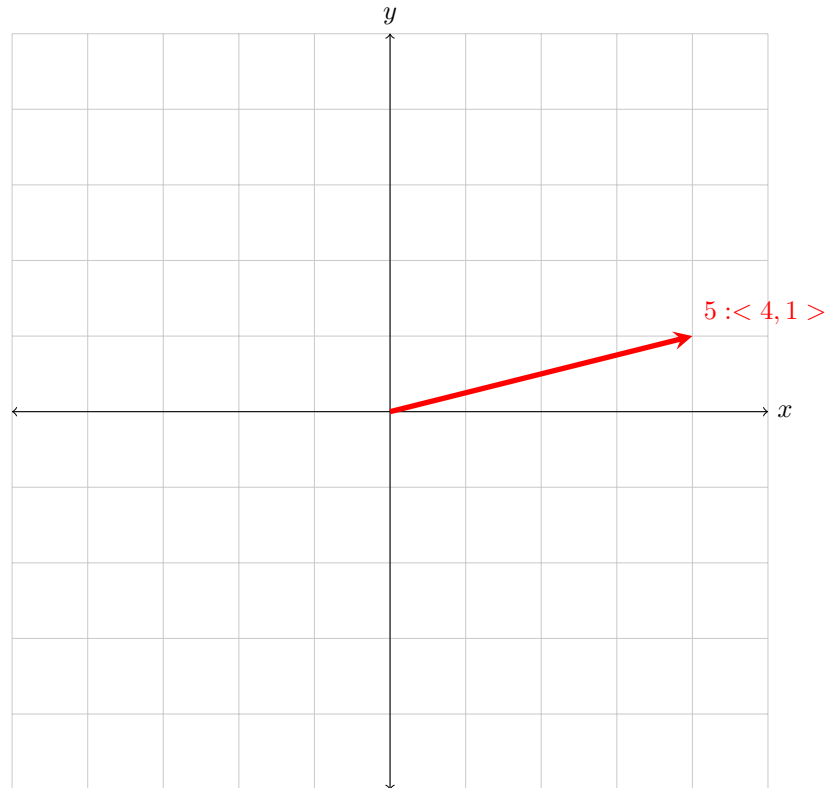
## Calculus III Homework 3 Question 2

November 24, 2021

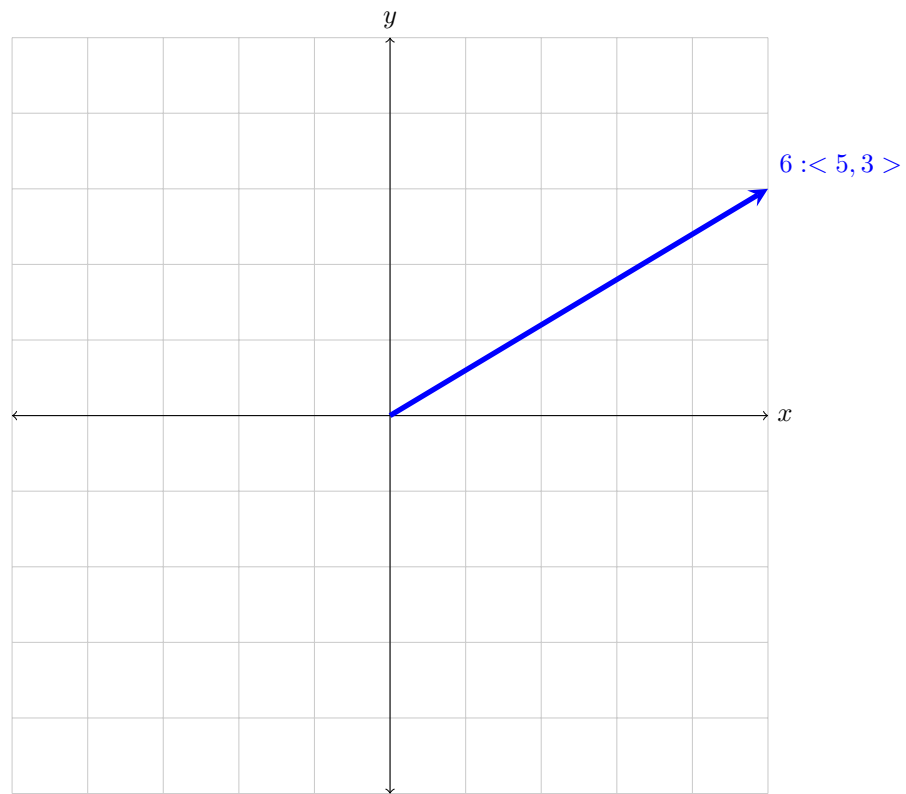
Find a vector  $\mathbf{a}$  with representation given by the directed line segment  $\overrightarrow{AB}$ .

Draw  $\overrightarrow{AB}$

$$5 : A(-1, 1), B(3, 2) : \overrightarrow{AB} = \langle 3 - (-1), 2 - 1 \rangle = \langle 4, 1 \rangle$$



$$6 : A(-4, -1), B(1, 2) : \overrightarrow{AB} = \langle 1 - (-4), 2 - (-1) \rangle = \langle 5, 3 \rangle$$



7 :  $A(0, 3, 1), B(2, 3, -1) : AB = \langle 2 - 0, 3 - 3, (-1) - 1 \rangle = \langle 2, 0, -2 \rangle$   
 8 :  $A(4, 0, -2), B(4, 2, 1) : AB = \langle 4 - 4, 2 - 0, 1 - (-2) \rangle = \langle 0, 2, 3 \rangle$