Please PRINT your name _____

No calculators, cell phones, computers, notes, etc.

Circle your answer. Make your work correct, complete and coherent.

The quiz is worth 5 points. The solutions will be posted on my website later today.

Quiz 2, January 22, 2020

Find the vector of length 7 that has the same direction as $\vec{v} = 12\,\vec{i} - 5\,\vec{k}$.

ANSWER: The vector $\dfrac{\vec{v}}{|\vec{v}|} = \dfrac{12\,\vec{i} - 5\,\vec{k}}{\sqrt{12^2 + 5^2}}$ has length 1 and the same direction as $\vec{v}$.

The vector $7\dfrac{\vec{v}}{|\vec{v}|} = \boxed{\dfrac{7}{\sqrt{12^2 + 5^2}}(12\,\vec{i} - 5\,\vec{k})}$ has length 7 and the same direction as $\vec{v}$.

Of course $\sqrt{12^2 + 5^2}$ can also be written as 13.