Vectors · Grade 12

Name _____ Date _____ Score _____ / 4

01 $\vec{a} = \langle 7, -4 \rangle, \vec{b} = \langle -7, -2 \rangle$. Find the scalar projection of $\vec{a}$ onto $\vec{b} \approx$ ____

02 $\vec{a} = \langle 7, -5 \rangle, \vec{b} = \langle 2, -3 \rangle$. Find the scalar projection of $\vec{a}$ onto $\vec{b} \approx$ ____

03 Find the unit vector in the direction of $\vec{v} = \langle -20, -21 \rangle$ = ____

04 Find the unit vector in the direction of $\vec{v} = \langle -5, -12 \rangle$ = ____

Vectors · Grade 12 (Answer Key)

01 $\vec{a} = \langle 7, -4 \rangle, \vec{b} = \langle -7, -2 \rangle$. Find the scalar projection of $\vec{a}$ onto $\vec{b} \approx$ **-5.6**

02 $\vec{a} = \langle 7, -5 \rangle, \vec{b} = \langle 2, -3 \rangle$. Find the scalar projection of $\vec{a}$ onto $\vec{b} \approx$ **8.0**

03 Find the unit vector in the direction of $\vec{v} = \langle -20, -21 \rangle$ = $\left\langle \frac{-20}{29}, \frac{-21}{29} \right\rangle$

04 Find the unit vector in the direction of $\vec{v} = \langle -5, -12 \rangle$ = $\left\langle \frac{-5}{13}, \frac{-12}{13} \right\rangle$