

WORKSHEET 9/20/23
MATH 2331, FALL 2023

Let $\vec{v} = (1, 0)$ and $\vec{w} = (0, 2)$. For the following problems, draw the vectors $A\vec{v}$ and $A\vec{w}$, where A is the given matrix.

(1) $\begin{bmatrix} 5 & 0 \\ 0 & 5 \end{bmatrix}$

(2) $\begin{bmatrix} 0 & 0 \\ 0 & 1 \end{bmatrix}$

(3) $\begin{bmatrix} 1 & 0 \\ 0 & -1 \end{bmatrix}$

(4) $\begin{bmatrix} \frac{\sqrt{3}}{2} & -\frac{1}{2} \\ \frac{1}{2} & \frac{\sqrt{3}}{2} \end{bmatrix}$

(5) $\begin{bmatrix} 1 & -2 \\ 2 & 1 \end{bmatrix}$

(6) $\begin{bmatrix} 1 & 0 \\ \frac{1}{3} & 1 \end{bmatrix}$