Name:_____

1. $\begin{bmatrix}-2 & 0 & -5\end{bmatrix} \times \begin{bmatrix}2 & 3 & -1\end{bmatrix}$
2. $\begin{bmatrix}-2 & 2 & 4\end{bmatrix} \times \begin{bmatrix}0 & 2 & -1\end{bmatrix}$
3. $|| \begin{bmatrix}4 - 32\end{bmatrix} ||$
4. What is the angle between the following two vectors (in radians)?
   $\begin{bmatrix}-1 & 3 & 3\end{bmatrix}, \begin{bmatrix}3 & -4 & -2\end{bmatrix}$
5. $|| \begin{bmatrix}0 & 0 & -1\end{bmatrix} ||$
6. What is the relationship between the following two vectors?
   $\begin{bmatrix}2 & 4 & -1\end{bmatrix}, \begin{bmatrix}-2 & -5 & -3\end{bmatrix}$
   (a) They point in the same direction
   (b) They point in opposite directions
   (c) They are perpendicular
7. $\begin{bmatrix}0 & -3 & 3\end{bmatrix} + \begin{bmatrix}-2 & 0 & -5\end{bmatrix}$
8. $\begin{bmatrix}-4 & 0 & -5\end{bmatrix} \cdot \begin{bmatrix}-1 & -5 & 0\end{bmatrix}$
9. Normalize $\begin{bmatrix}-3 & 0 & 3\end{bmatrix}$