

Let  $\vec{a} = \langle 3, 5 \rangle$ ,  $\vec{b} = \langle 7, 2 \rangle$ , and  $\vec{v} = \langle 1, 3, -2 \rangle$ .

1. Find the projection of  $\vec{a}$  onto  $\vec{b}$
2. Find two vectors perpendicular to  $\vec{b}$ .
3. Find three vectors perpendicular to  $\vec{v}$ .