The component of u orthogonal to w is

$$\text{Proj}_w{}^{\perp} u = u - \text{Proj}_w u$$

$$= (1, 1, 1) - (\tfrac{4}{25}, 1, -\tfrac{3}{25})$$

$$\boxed{\text{Proj}_w{}^{\perp} u = (\tfrac{21}{25}, 0, \tfrac{28}{25})}$$

GRAM - Schmidt Process :-

To Convert a basis vectors $u_1, u_2, \ldots u_n$ in an orthogonal (Perpendicular) vectors perform the following Computations.

Step 01

$$V_1 = u_1$$

Step 02 $\quad V_2 = u_2 - \text{Proj}_{w_1} u_2$

$$V_2 = u_2 - \frac{\langle u_2, v_1 \rangle}{\| v_1 \|^2} v_1$$