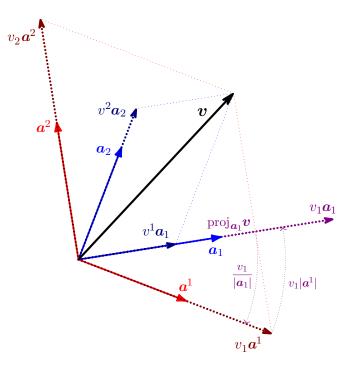


$$a_1 \times a_2 \cdot a_3 = \sqrt{g} = 0.56274$$

 $1/\sqrt{g} = 1.77703$

$$\boldsymbol{a}_i \boldsymbol{\cdot} \boldsymbol{a}^j = \left[\begin{array}{ccc} \boldsymbol{a}_1 \boldsymbol{\cdot} \boldsymbol{a}^1 & \boldsymbol{a}_1 \boldsymbol{\cdot} \boldsymbol{a}^2 & \boldsymbol{a}_1 \boldsymbol{\cdot} \boldsymbol{a}^3 \\ \boldsymbol{a}_2 \boldsymbol{\cdot} \boldsymbol{a}^1 & \boldsymbol{a}_2 \boldsymbol{\cdot} \boldsymbol{a}^2 & \boldsymbol{a}_2 \boldsymbol{\cdot} \boldsymbol{a}^3 \\ \boldsymbol{a}_3 \boldsymbol{\cdot} \boldsymbol{a}^1 & \boldsymbol{a}_3 \boldsymbol{\cdot} \boldsymbol{a}^2 & \boldsymbol{a}_3 \boldsymbol{\cdot} \boldsymbol{a}^3 \end{array} \right] = \left[\begin{array}{ccc} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{array} \right] = \delta_i^j$$

 $\begin{tabular}{ll} figure 1 \\ "Decomposition of vector" \end{tabular}$



$$a_1 \cdot a_1 = 1.44, \ |a_1| = 1.2$$

 $a_2 \cdot a_2 = 1, \ |a_2| = 1$
 $a^1 \cdot a^1 = 0.9259, \ |a^1| = 0.9623$
 $a^2 \cdot a^2 = 1.3333, \ |a^2| = 1.1547$