

1. Problem 7-13: Jones (on HW #2)  
Using the formula on page 12, e.g.

$$R(\hat{w}, \theta) = (\hat{u} \ \hat{v} \ \hat{w}) \begin{pmatrix} \cos \theta & -\sin \theta & 0 \\ \sin \theta & \cos \theta & 0 \\ 0 & 0 & 1 \end{pmatrix} (\hat{u} \ \hat{v} \ \hat{w})^{-1}$$

show directly that

$$R(\hat{w}, 0) = I.$$

Then give a heuristic explanation of this equation.

2. Prof Jo level trig (in class problem)  
Let

$$A = \begin{pmatrix} 1 & 0 & 0 \\ 0 & \frac{1}{2} & -\frac{\sqrt{3}}{2} \\ 0 & \frac{\sqrt{3}}{2} & \frac{1}{2} \end{pmatrix}$$

Find  $\hat{w}$  and  $\theta$  such that  $A = R(\hat{w}, \theta)$ .