Problems for Lecture 2

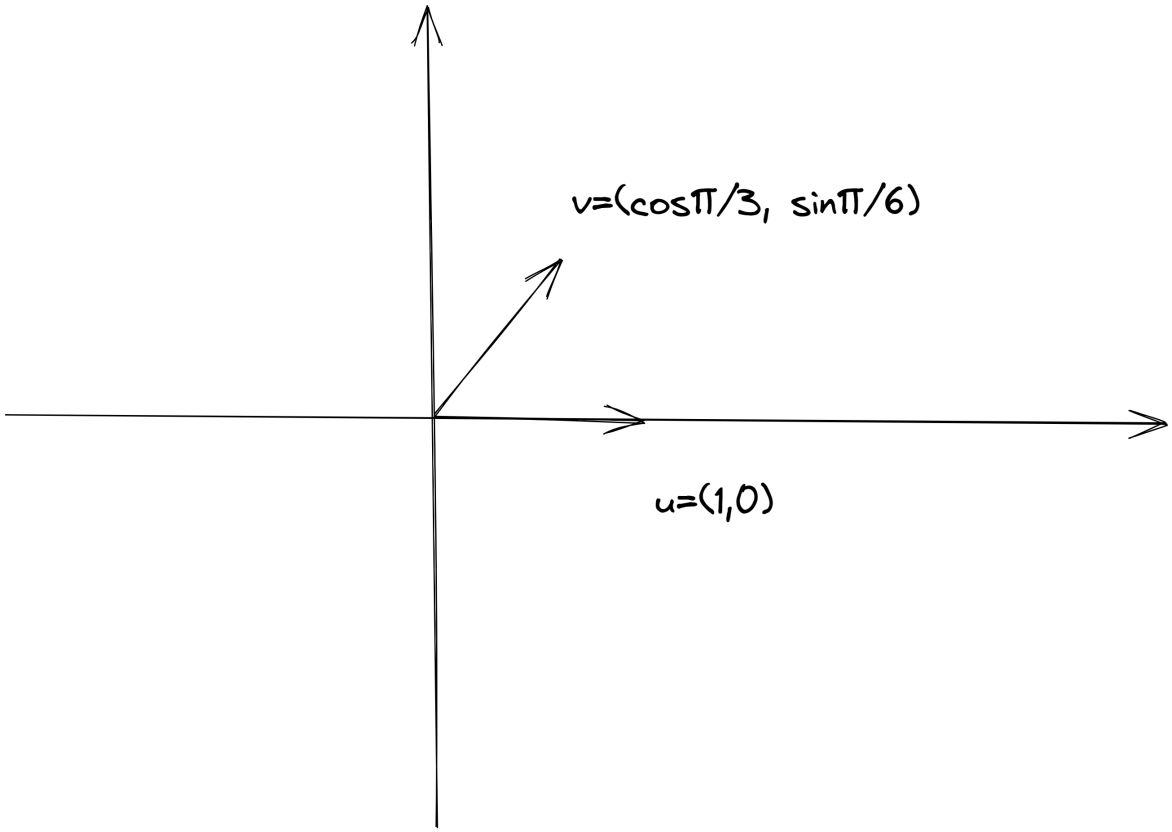
2.yes; m by p; $a_i \times {b_j}^T$; It is a symmetric matrix

6.

$$a_i b_i^* = [(0) \quad a_i \quad (0)] \qquad i = 1, 2, 3$$

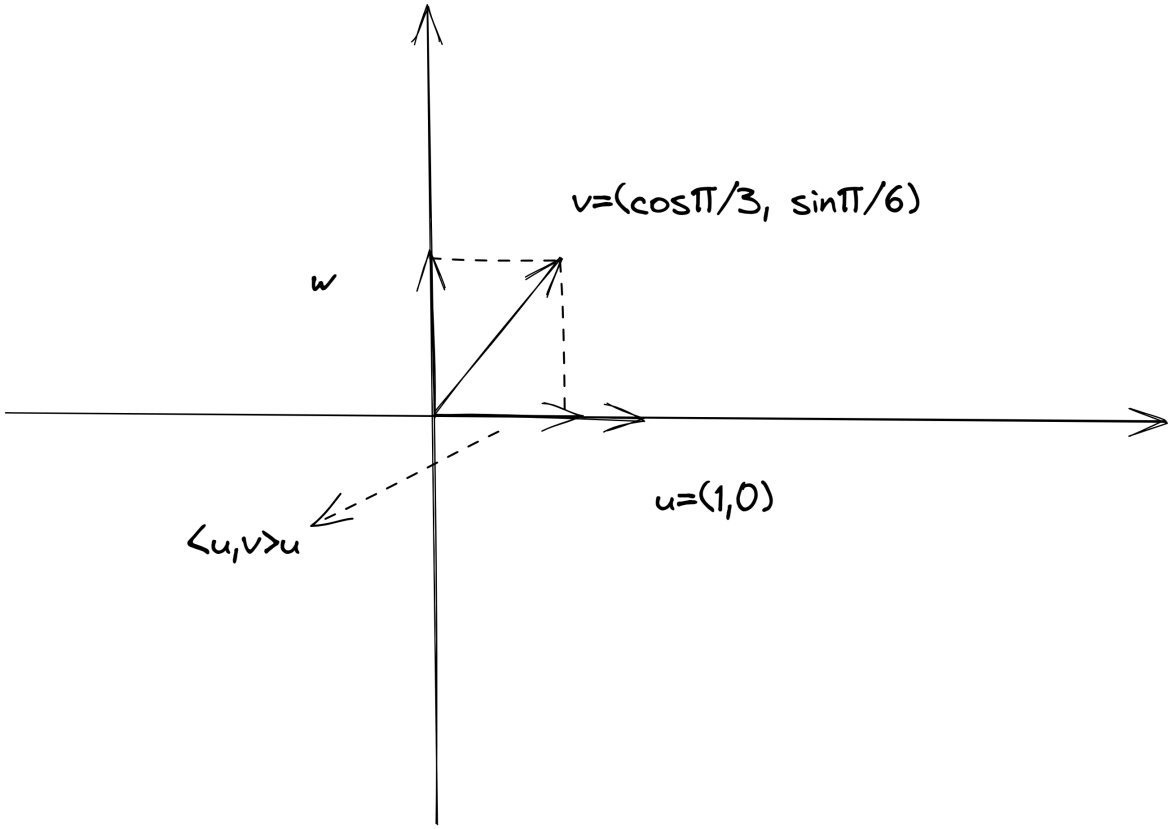
Problems for Lecture 3

2.



Clearly, we have

$$u^T w = 0$$



4.

$$(Qx)^T(Qy) = x^T Q^T Q y = x^T y$$

6.0; P^T