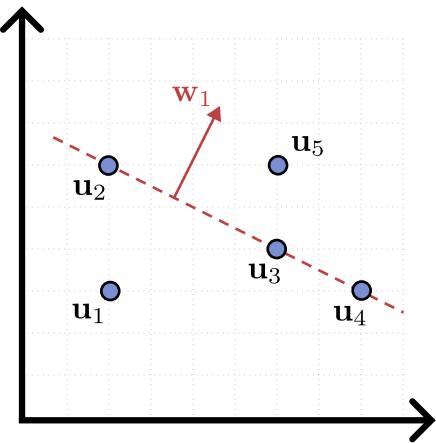
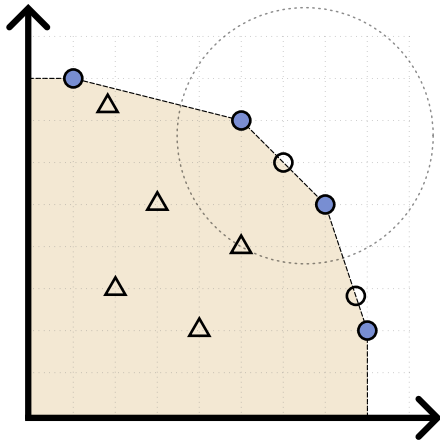


$$\mathbf{w}_1^\top \mathbf{u}_1 < \mathbf{w}_1^\top \mathbf{u}_2 = \mathbf{w}_1^\top \mathbf{u}_3 = \mathbf{w}_1^\top \mathbf{u}_4 < \mathbf{w}_1^\top \mathbf{u}_5$$

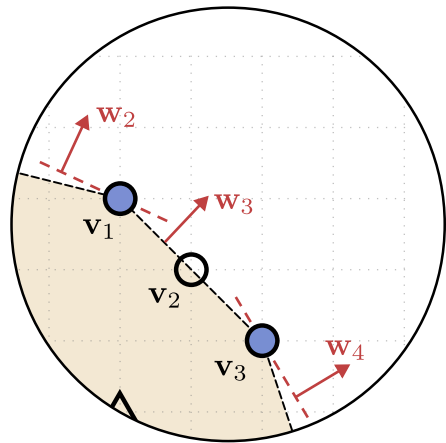
$$\begin{aligned} \mathbf{w}_2^\top \mathbf{v}_2 &< \mathbf{w}_2^\top \mathbf{v}_1 \\ \mathbf{w}_3^\top \mathbf{v}_2 &= \mathbf{w}_3^\top \mathbf{v}_1 = \mathbf{w}_3^\top \mathbf{v}_3 \\ \mathbf{w}_4^\top \mathbf{v}_2 &< \mathbf{w}_4^\top \mathbf{v}_3 \end{aligned}$$



(a)



(b)



(c)