

## Homework 1 Math 143 Sp2020

Problem 1: Review Linear algebra and then give an example of your application using linear algebra method(s) but not in the review problem set.

Problem 2: Express the unit sphere  $S^3$  in  $\mathbb{R}^4$ ,  $x^2 + y^2 + z^2 + w^2 = 1$ , in at least another two different ways. (Recall in the class, we express the unit circle  $S^1$  in many different ways).