

HOMEWORK 8

MATH 243

12.4.44

For (a), your answer should be simple enough that someone reading your answer could easily write down ten vectors \mathbf{v} that work in a minute or two. An answer like “infinitely many” would be woefully insufficient, because it wouldn’t actually help someone find vectors that work.

12.5.82

Hints for (b): What happens if you set $z = 0$? What does that mean?

Hints for (c): As a warmup, first figure out what’s going on in the yz -plane. What family of lines do you get? You’ll probably find it helpful to make use of the identity $\cos^2 \theta + \sin^2 \theta = 1$.