

215a Homework exercises 1, due Oct. 8

Homework exercise key: “Luke problem  $n.m$ ” refers to exercise set  $n$ , problem  $m$ . Likewise for Tong. Follow links from website.

1. Luke 1.4 (the problem about mass dimensions).
2. Luke 1.5 (total derivatives).
3. Luke 1.6 (vector field)
4. Tong 1.3 (complex field)
5. Tong 1.4 ( $SO(3)$  rotations).