

**Symplectic Exercises, due Monday 2/28/22**

**NAME:**

Email Prof Jo solutions to 4 of these exercises, or let her know you are slated to give a talk

1. Exercise 1.1.13 in McDuff-Salamon
2. Show that if a manifold admits a symplectic form then it must be even dimensional.
3. Show that a symplectic form on a manifold  $M$  implies that the symplectic area of an embedded surface  $S$  with boundary in  $M$  doesn't change as  $S$  moves provided it's boundary is fixed. (trickier)
4. Show that the only sphere which admits a symplectic form is  $S^2$ .
5. Exercise 2.1.2 in McDuff-Salamon
6. Exercise 2.3.3 in McDuff-Salamon