1. Compute the Drinfeld center of $\text{Rep} D_8$, along with its tensor product and braiding. (If you don’t like $D_8$, then do it for your favorite finite group. But if you choose the trivial group, you’re being lame.)

2. Let $\mathcal{C} = \text{Vec}_G$ and $\mathcal{M} = \text{Vec}$, with the obvious $\mathcal{C}$-module structure on $\mathcal{M}$. What is $\mathcal{C}_\mathcal{M}^*$?

3. Let $Z$ be an $n$-dimensional TQFT and $M$ a closed, oriented $(n - 1)$-manifold. Show that $Z(M)$ is finite dimensional and dual to $Z(\bar{M})$.

4. Verify that the bar complex is really a complex.