Math 4200-001
Week 3concepts and homework
1.5
Due Wednesday September 11 at start of class.

1.5 1ad, 3b, 5c, 6b (in 5c and 6b describe the differential map as a rotation-dilation); 8, 9, 10, 11, 13 (then look at 14 but don't do 14), 16, 18abc, 19.
Postpone 8, 16, until next week.

w3.1 For 5c above, sketch a domain $\mathbb{C}$ and a target $\mathbb{C}$. To illustrate the differential map, add a unit "L-square" to the domain picture, with it's lower left corner at the point $z_0 = 0$, and sketch its image under the differential map, as a rotated dilated square in the tangent space of $f(z_0)$. (I changed this from the analogous question for 6b, although the original problem would've worked out fine, it turns out. If you do either one, that's fine.)