## GALACTIC ASTRONOMY - HOMEWORK 2 - MAX BECHTHOLD. ELIAS HÜHN

1.a)

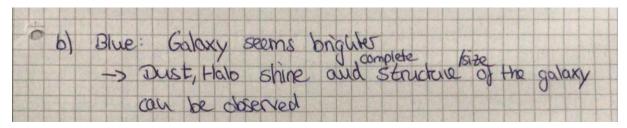
a) M100: Spiral, no box, small arm opening >> Say,

NGC1300: Spiral, box, small-measure arm opening >> SBoy (myse SBS)

NGC4486: elliptical, E=0 => EO,,

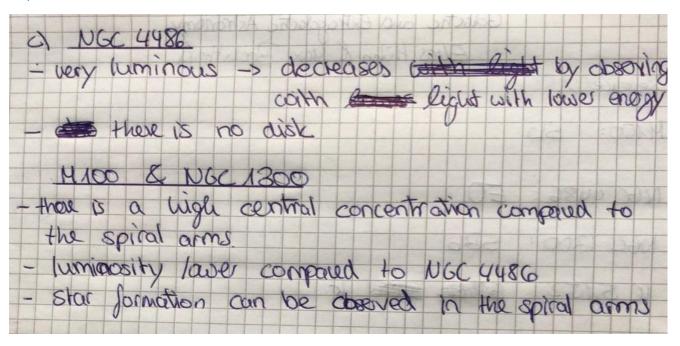
1C0152: irregular => Ir,

1.b)



in queal:
1. difference in drightness. Shee is Srightest, then rat, IR is faintest
2. Bulge stays a constantly single trough all sans.
3. In the infrared the spirals are funte (relatively to blue/real) than
the elliptical is in IR.

1.c)

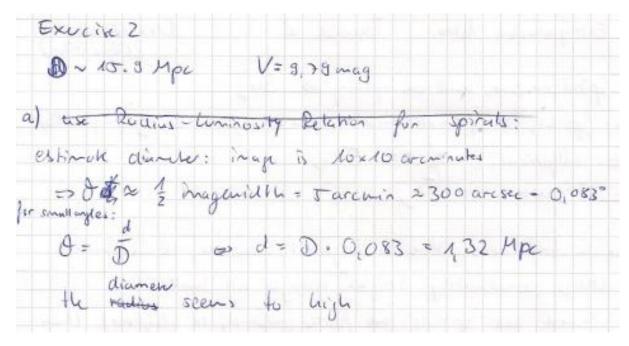


The arms in the spirits are singlish in slue, since others regions are dominated by luminaces 0 and B stars (blue).

The Bulges remain bright also in the red, since they also contain add star population that are usually colour and therefore redder.

The elliptical stays also bright in the red since ellipticals are usually nade up from old star populations. In the IR it shows bright as ellipticals are usually dust and say depleted, that also is IR

## Exercise 2 a)



Reasons for the wrong diameter estimate could be various. The Galaxy could not be as face on as It seems (possibly having a small inclination). Most importantly is the image width estimate only by eye measure, giving rise to a high error.

## Exercise 2 b and c)

