1- Give TWO advantages and TWO disadvantages of the ETDRS distance acuity chart for measuring the acuity of a partially sighted patient (4 marks)

* + Adv
    - More letters at large sizes
    - Equal mag. of letter size between rows (smaller than Snellen at large sizes)
    - Proportional spacing of rows and letters
  + Dis
    - Not used for registration
    - No information about viewing distance
    - (Chart calibrated for 4m)

2- A subjective refraction of -2.00/-2.00 x 180 is obtained with a viewing distance of 1m.

What is the true distance Rx?

A -1.00/-1.00 x 180

B -1.00/-2.00 x 180

C -3.00/-2.00 x 180 (✓)

D -2.00/-3.00 x 180

E -3.00/-3.00 x 180

3- If the patient’s acuity is 3/60, with what steps of sphere power would you expect the patient to be able to distinguish changes in acuity?

A +/- 0.50

B +/- 1.00

C +/- 1.50

D +/- 2.00 (✓)

E +/- 4.00

4- Why the magnification might it not work?

* Hand shake/image movement
* Inaccurate focussing
* Loss of light (especially high-powered astronomical)
* “inaccurate” measurement of initial VA

5- A formula exists to predict near VA by dividing the denominator of distance VA by 3. Give THREE reasons why this prediction may prove to be inaccurate when you actually measure the patient’s performance

* + - Different illumination conditions on the two tests
    - Crowding effect of letters within words/words more difficult if central scotoma
    - Miosis can make acuity worse if central cataract
    - If meaningful sentences, patient could guess
    - Inaccurate measurement of initial Snellen VA