Spherical Mirrors and THIN LENSES

We mostly do ray tracing on these so pay particular attention to the figures below

READ/Study SECTION 32-3 (FIRST TWO PAGES ONLY), especially fig 32-10, 32-12, 32-14 and SECTION 33.1, especially figures 33-3, 33-5 and 33-8

Questions to hand in on the due date:

See fig 32-10 for questions 1 and 2

1. A spherical mirror whose mirrored surface bulges toward a viewer is called?
2. A spherical mirror whose mirrored surface sinks away from the viewer is called?
3. A straight perpendicular drawn line to the center of a curved mirrored surface is called?
4. See fig 32-14 IF multiple rays striking a curved mirrored surface reflect and come to a point, that point is known as the?
5. The distance to the point in question 4 and the center of the mirrored surface is called the?
6. What shaped mirror will overcome spherical aberration and bring all reflected rays to a point?
7. The straight line we draw passing through the center of a lens and perpendicular to its two surfaces is called the?
8. See fig 33-3a: Parallel rays to the axes of a thin converging lens are focused to a point called the?
9. The distance to the point in question 8 is called the?
10. A converging lens brings parallel rays striking it at all angles to a plane known as the___? of the lens.
11. The unit of lens power is called the?
12. Show a formula for the unit mentioned in question 11?
13. If you see an image while looking through a lens, that image is called a?

Problems to hand in with your lab report. Show all work (formulas and any math used)
P1. A spherical mirror whose radius of curvature is 25 cm has a focal length of?

P2. If your optician puts a converging lens in your glasses with a focal length of 40cm, opticians would say the lens has a diopter of?