

1. What is OE about?
2. Do you know any optical system?
3. Draw a telescope?
4. What is magnification equation? How do you get it? Prove it?
5. Relate the equation with drawing? and explain the task of each lens?
6. How do you get the height of intermediate image?
7. What is objective and ocular? Size?
8. What could be the possible size of objective
9. How mirror based telescope works? Name one? explain?
10. What's the diameter of Hubble telescope mirror?
11. What type of mirror do we use in Hubble telescope?
12. What's the largest telescope available? What type of mirror do we use there? How do we make such mirror? What precision do we need? Why can't we make it 1km?
13. What the shape of perfect converging mirror? Equation?
14. How do we get such shape?
15. How precise the shape of mirror should be for perfect image? How could we produce such mirror? If not what the problem?
16. What the difference between solar system mirror and telescope mirror?
17. What is aberration?
18. Why do we have aberration? Types?
19. How could we measure aberration?
20. What's the difference between idea lens and real leans? draw the image for both?
21. How do we define lens property? How its look like?
22. what is PSF?
23. How do we simulate a real system with Zimax?
24. How different a wavefront could be in front of your lens? Draw it?
25. How do we call it? and how do we calculate it?
26. What Zernike polynomial?
27. How do we get Zernike polynomial? draw it and show the wavefront difference? What you will get for ideal lens?
28. Difference between ideal and real lens response in image plane?
29. Why do we call plain wave response as a point source response?
30. How do we get plain wave response of a lens?
31. How do we get idea lens response?