Please review the following problems. Multiple choice are choose all that apply.

1. Which of the following is/are considered Jackson cross cylinders?
2. -1.00+2.00X180
3. +1.00-1.00X70
4. 0.00-1.00X060
5. +2.50-5.00X70
6. -0.50+1.00X045
7. +3.00-3.00X090
8. You are retting a patient’s right eye at 50cm. With the beam vertical, you find neutral with -1.00 free lens. With the beam horizontal, you find neutral with a -2.00 free lens. What is this patient’s objective prescription in minus cyl form? What is the prescription in plus cyl form?
9. How would refracting in a 10ft room, without a mirror, affect a refractive result and why?
10. Transpose -2.00+1.25X50 to minus cyl form.
    1. -2.00-1.25X140
    2. -0.75-1.25X140
    3. -3.25-1.25X050
    4. +0.75-1.25X140
11. Transpose +3.00-1.75X040 to plus cyl form.
    1. -3.00+1.75X130
    2. +1.25+1.75X040
    3. +1.25+1.75X130
    4. +1.75+1.25X130
12. At a working distance of 67cm, you ret a patient wearing their +2.00D distance Rx. You scope neutrality with +1.00 in all meridians. What is their Rx?
    1. +3.00
    2. +1.00
    3. +1.50
    4. +2.00
13. If you are at neutrality with your ret and you move away from the patient, what motion will you now see?
    1. With
    2. Against
    3. Neutral
    4. Impossible to say
14. What will indicate you are close to neutrality in terms of speed, brilliance, width of streak?
15. Patient has the following K’s [46.25@160/43.00@070](mailto:46.25@160/43.00@070).
    1. Is the K astigmatism with or against the rule?
    2. Write the **correction necessary** for the corneal cylinder in both minus and plus cyl form.
    3. Use Javal’s Rule to calculate total refractive astigmatism.
       1. Hint: Javal’s Rule🡪 TRA=1.25(K)+(-0.50X090) OR TRA=1.25(K)+(+0.50X180)
16. You are using a plus cylinder phoropter. You find that the reflex is parallel to your beam along the 090th meridian. You see against motion here. You rotate your beam 90 degrees and see with motion.
    1. Which meridian should be neutralized first with sphere?
    2. After correctly neutralizing this meridian, what motion should you see 90 degrees away?
    3. What is the axis of the correcting plus cylinder?
17. You have an unknown sph and minus cyl lens in front of a schematic eye. You neutralize to -3.00-1.25X030 at a working distance of 50cm.
    1. What is your final Rx?
       1. -3.00-1.25X030
       2. -5.00-1.25X030
       3. -6.25+1.25X120
       4. -5.00-3.25X030
    2. What lenses were placed in front of the schematic eye to simulate this refractive error?
       1. +6.25-1.25X030
       2. +5.00+1.25X030
       3. +6.25-1.25X120
       4. +6.25+1.25X030
       5. +3.00+1.25X030
18. You scope your patient with your beam vertical and find neutrality at 33cm. You scope 90 degrees away and find neutrality at 50cm.
    1. What is the patient’s Rx in plus cyl form?
       1. -3.00+1.00X180
       2. -3.50+1.50X180
       3. -2.00-1.00X090
       4. -2.00-1.00X180
19. You are retting in free space with loose lenses at a working distance of 67cm. With your beam oriented, 1 to 7 o’clock (relative to examiner), you scope -2.25. With your beam 4 to 10 o’clock, you scope +1.00. What is the final Rx?
    1. -3.75+3.25X120
    2. -0.50-3.25X030
    3. +1.00-3.25X030
    4. -2.25+3.25X120
    5. +1.00-3.25X120