

**THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST YOU IN PREPARING FOR THE PRACTICAL EXAMINATION. MORE DETAILED INSTRUCTIONS ARE INCLUDED IN THE CANDIDATE BOOKLET.**

**Examination References**

- Brooks, C.W. Essentials for Ophthalmic Lens Finishing. Butterworth-Heinemann, 2003.
- Brooks, C.W., and Borish, I.M. System for Ophthalmic Dispensing. Butterworth-Heinemann, 2007.
- Z-80.1-2005 American. American National Standard for Ophthalmics – Prescription Ophthalmic Lenses Requirements. New York: American National Standards Institute, 2005.
- Optical Laboratories Association, Progressive Identifier. 2009
- Stein, Slatt, Stein. The Ophthalmic Assistant, Mosby.

**General Examination Information**

- You are not permitted to make written notes of or to record in any way the content of an exam.
- Candidates are responsible for understanding and following all instructions.
- Sharing of equipment during the examination is prohibited.
- It is strongly suggested that you check the accuracy of your equipment prior to arriving at the test site. You are solely responsible for any malfunctions.
- Proctors are prohibited from answering questions regarding examination content.
- You *are* permitted to bring the following items into the examination room:
  - Sharpened No. 2 lead pencils with erasers (for recording examination answers)
  - Focimeter (Lensometer, Vertometer or Marco Lensmeter)      Lens clock      Calipers
  - Non-programmable calculator, handheld magnifier, small non-disruptive light source
  - Millimeter ruler      Admission letter
  - Proper ID (driver’s license, state ID card, passport, or military ID)
- The following items *are not* permitted in the examination room:
  - Purses, briefcases, portfolios, fanny packs, or backpacks      Cameras, tape recorders, or computers
  - Pagers, electronic transmitting devices or telephones      Any bound or loose-leaf reference material or notes
  - Food, drink, or tobacco products
- Candidates not bringing their own lensmeter will be provided a Marco Model 101.
- Candidates are responsible for the accuracy of *all* equipment used during the examination.
- Answers may be required in either plus (+) or minus (-) cylinder form.
- All powers must be identified to the nearest 0.12 Diopter.
- Candidates are encouraged to bring a hand-held magnifier and non-programmable calculator to the exam.

**Test Tolerances**

<u>Type of Measurement</u>	<u>Tolerance</u>
Spherical Power from 0.00 to 6.50 diopters	± 0.13 diopter
Spherical Power above 6.50 diopters	± 2%
Cylinder Power from 0.00 to 2.00 diopters	± 0.13 diopter
Cylinder Power from 2.12 to 4.50 diopters	± 0.15 diopter
Cylinder Power above 4.50 diopters	± 4%
Axis when cylinder is less than or equal to 0.250 diopter	±14 degrees
Axis when Cylinder Power is greater than 0.250 to 0.500 diopters	± 7 degrees
Axis when Cylinder Power is greater than 0.500 to 0.750 diopters	± 5 degrees
Axis when Cylinder Power is greater than 0.750 to 1.500 diopters	± 3 degrees
Axis when Cylinder Power is greater than 1.500 diopters and above	± 2 degrees
Spherical Power of the near addition 0.00 to 4.00 diopters	± 0.12 diopter
Spherical Power of near addition above 4.00 diopters	± 0.18 diopter
Combined Vertical Imbalance	± 0.50 prism diopter
Lens thickness	± 0.3 millimeter
Base curve	± 0.25 diopter
Size of the lens	± 1.0 millimeter
Distance between lenses (DBL)	± 1.0 millimeter
‘A,’ & ‘B’	± 1.0 millimeter
Distance between optical centers	± 1.0 millimeter
Segment height or width	± 0.5 millimeter
Decentration of bifocal or trifocal	± 1.0 millimeter
Right or left monocular distance P.D.	± 1.0 millimeter
Binocular distance P.D. or near P.D.	± 2.0 millimeters
Prism thinning	± 0.25 prism diopter

## Test Content

The EYEGASSES PRACTICAL EXAMINATION is designed to test your ability to perform certain practical tasks related to the practice of opticianry.

This two-hour (120-minute) test may include but will not be limited to the following topics:

**From a pair of mounted progressive addition lenses:**

- neutralize the distance portion of the lenses;
- determine the add power;
- measure the base curve;
- quote and apply ANSI Z80.1-2005 standards;
- identify the manufacturer's product name using the hidden identifying logo;
- identify the manufacturer's recommended minimum height;
- measure prism reference point height;
- measure fitting cross height;
- measure prism thinning;
- analyze the lenses for unwanted vertical prism;
- measure monocular P.D.

**From a pair of mounted bifocal lenses:**

- neutralize the distance portion of the lenses;
- determine the add power;
- determine the meridian of highest absolute power;
- measure the distance between prism reference points;
- measure the base curve;
- measure the distance between optical centers;
- measure the "near P.D."
- determine the frame "B" measurement;
- measure the seg height;
- identify the seg width;
- analyze the lenses for unwanted vertical prism;
- measure the lens center thickness.

**From two pairs of mounted single vision lenses:**

- neutralize the distance portion of the lenses;
- measure the distance between optical centers;
- measure the lens center thickness;
- analyze the lenses for possible vertical prism;
- measure the base curve.

**Given a spectacle frame and Rx for progressive lenses:**

- determine the monocular decentration;
- determine the fitting cross drop/raise;
- determine the prism reference height.

**Given a spectacle frame and Rx for visible bifocals:**

- determine the distance decentration per lens;
- determine the seg inset per lens;
- determine the total inset per lens;
- determine the seg drop/raise per lens;
- determine the best minimum blank size.

**Using the provided material/information:**

- calculate the distance compensated power using a vertex distance compensation chart;
- calculate specialty lens power (TV, Reading, Computer, Piano, Intermediate, etc.);
- calculate vertical imbalance;
- determine bicentric grinding placement;
- split prism for best cosmetic effect;
- transpose a prescription;
- calculate the "power" of the cylinder in an oblique meridian.