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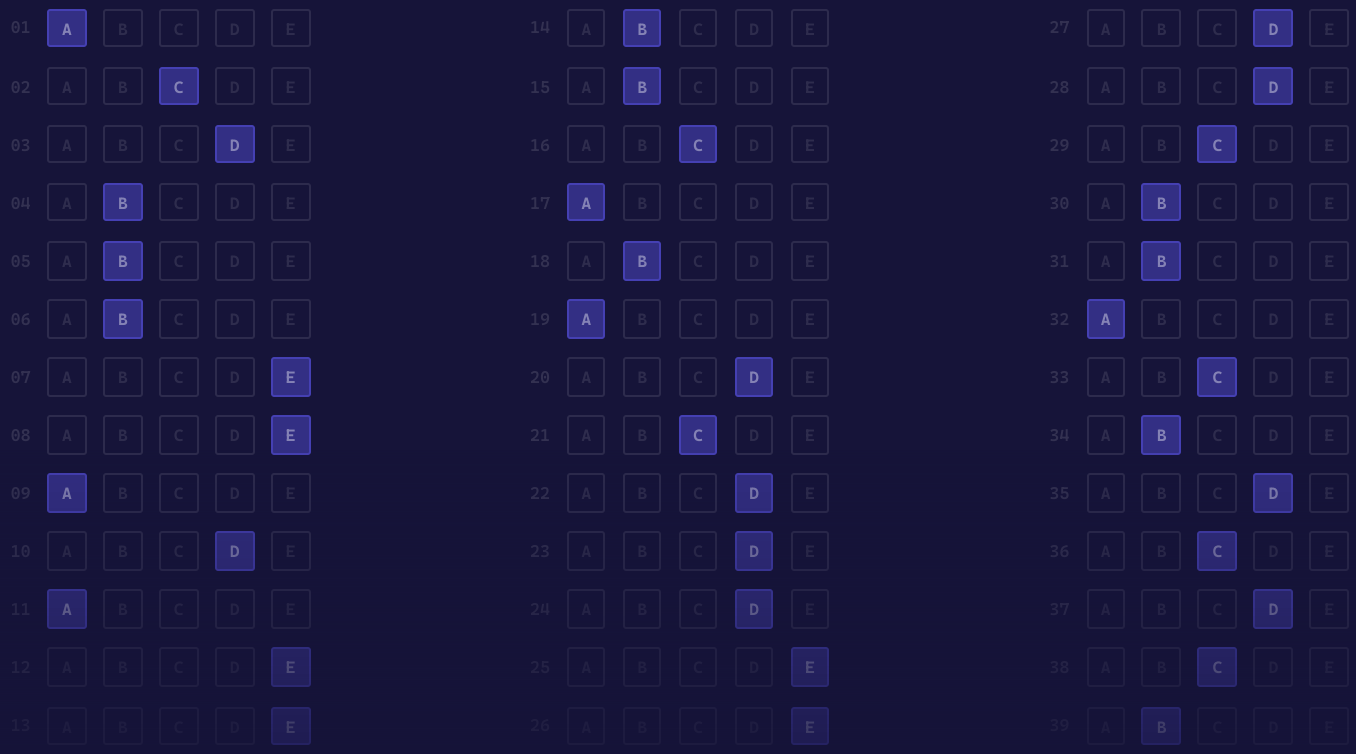


PRACTICE QUESTIONS

## American Board of Opticianry And National Contact Lens Examiners (ABO NCLE) (ABOB)

# ABOP

American Board of Opticianry Practical Exam

| EDITION | QUESTIONS | FORMAT |
| --- | --- | --- |
| Demo | 9 | Limited Edition PDF |

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# Before you begin

## What this is

9 practice questions for American Board of Opticianry And National Contact Lens Examiners (ABO NCLE) (ABOB) `ABOP`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

## If something looks wrong

Send us three things and we will check it:

- the exam code, `ABOP`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

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**QUESTION 1** SINGLE CHOICE

When neutralizing a finished single-vision lens on a lensometer, what is the correct procedure for finding the optical center?

**A** **Center the lens over the lensometer stop, mark the three reference dots, and superimpose the mires in all three meridians.**

B Rotate the lens until the mires are clearest, then read the sphere and cylinder power directly from the power wheel.

C Align the lens so the cylinder axis marks on the lens match the engraved axis on the lensometer, then read the sphere power only.

D Place the lens against the lensometer stop with the temporal side toward the marking system, then read the add power from the power wheel.

**ANSWER** **A**

**WHY** To find the optical center of a lens, the optician centers the lens over the lensometer stop, marks the three reference dots on the lens, and verifies that the mires are superimposed (unbroken and aligned) in all three meridians. The mires remain clear and centered only at the true optical center.

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**QUESTION 2** SINGLE CHOICE

A patient has 2 prism diopters of vertical imbalance in their prescription. The optician must neutralize the lenses and confirm base direction. On the lensometer, vertical prism is read by displacing which mire, and in what direction does base UP appear?

A The sphere mire is displaced; base UP appears as the mire displaced downward in the lensometer view.

**B The cylinder mire (axis dots) is displaced; base UP appears as the mire displaced upward in the lensometer view.**

C Both mires are displaced equally; base UP is read from the sphere power wheel, not the mire position.

D The target reticle is displaced by the patient; base UP is read directly from the engraved prism scale on the lensometer base.

**ANSWER B**

**WHY** Vertical prism on a lensometer is read by the displacement of the cylinder (axis) target/mire, not the sphere mire. The base direction is named opposite the direction of displacement: if the cylinder mire is displaced downward in the eyepiece view, the base is UP. This is a standard part of the ABO practical exam's prism verification skill set.

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**QUESTION 3** SINGLE CHOICE

An optician receives a written prescription for a patient and verifies the completed spectacles against it. Which of the following pairs of values must match the prescription within ANSI Z80.1 tolerance for sphere, cylinder, axis, and add power?

A Sphere, cylinder, axis, prism, and base direction

B **Sphere, cylinder, axis, add power, and optical center alignment to the wearer's pupillary distance**

C Sphere, axis, base curve, and refractive index of the lens material

D Cylinder, axis, add power, and lens thickness at the optical center

**ANSWER** B

**WHY** Spectacle verification requires that the measured sphere, cylinder, axis, and add power match the prescription within ANSI Z80.1 tolerances, and that the optical centers are aligned to the wearer's measured pupillary distance. Prism/base direction is also verified when prescribed, but base curve, refractive index, and center thickness are not part of the prescription verification.

**QUESTION 4** SINGLE CHOICE

An optician is measuring a patient's distance monocular pupillary distances using a PD ruler. Where should the zero mark of the PD ruler be aligned for the right eye measurement, and what should the optician instruct the patient to fixate on?

A Zero mark at the temporal limbus of the right eye; patient fixates on the optician's open left eye.

B **Zero mark at the nasal limbus of the right eye; patient fixates on a distant object straight ahead.**

C Zero mark at the center of the right pupil; patient fixates on the optician's nose.

D Zero mark at the temporal canthus of the right eye; patient fixates on the optician's right ear.

**ANSWER** B

**WHY** For monocular PD measurement with a PD ruler, the zero mark is aligned at the nasal limbus of the right eye, and the patient is asked to fixate on a distant object straight ahead so the eyes are in primary (distance) position. Reading at the temporal limbus of the left eye gives the binocular distance PD.

**QUESTION 5** SINGLE CHOICE

During a standard four-point touch alignment check of a metal eyeglass frame on a patient, the optician observes that the frame front does not touch the bridge of the nose at the upper (crest) pad contact area. Which adjustment is required?

**A** **Bend the pad arms outward at the bridge to increase the crest contact.**

B Tighten the hinge screws and recheck four-point touch.

C Bend the endpieces inward equally on both sides to bring the frame closer to the face.

D Adjust the temple bend (crook) closer to the top of the ear.

**ANSWER** **A**

**WHY** The four-point touch standard requires that the eyewear touch the nose at three points on each pad (the crest area and the two sides of the pad). If the crest (upper) area is not contacting, the pad arms must be bent outward slightly to bring the pad flat against the nose. Tightening hinges or changing the temple bend does not address nose-pad contact.

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**QUESTION 6** SINGLE CHOICE

While neutralizing a progressive addition lens (PAL) on a lensometer, the optician locates the fitting cross and the engraved markings. Where should the lensometer stop be positioned to verify the distance power of the PAL, and what is the correct way to confirm the add power?

A Place the stop anywhere over the lens; the lensometer automatically finds the distance zone based on the engravings.

**B Place the lensometer stop at the center of the distance zone, verified using the manufacturer's fitting cross or distance reference markings, then move to the near zone to subtract from the distance sphere to verify the add.**

C Place the stop at the temporal engraving, then read add power directly from the power wheel without subtraction.

D Place the stop at the nasal engraving, then read both distance and add directly from the engraved numbers next to the markings.

**ANSWER B**

**WHY** For a PAL, the distance zone is neutralized by aligning the lensometer stop with the fitting cross / distance reference marking, not by guesswork. The add power is verified by neutralizing the near (reading) zone and subtracting its sphere power from the distance sphere power; the difference equals the add. The engravings themselves are reference points, not power readings.

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**QUESTION 7** SINGLE CHOICE

An optician is fitting a patient with lined bifocals and must establish the segment (seg) height. Which technique and reference point is the standard ABO method for determining seg height?

**A** **Measure from the center of the pupil to the deepest part of the lower lid margin with the patient in primary gaze and the frame adjusted to wear position.**

B Measure from the bottom of the frame to the top of the pupil with the patient's chin tilted upward 30 degrees.

C Measure from the top of the frame to the lower lid margin with the patient looking at a near card held at 40 cm.

D Estimate the seg height as 2 mm below the pupil center regardless of frame geometry.

**ANSWER** **A**

**WHY** The standard clinical method is to measure from the center of the pupil straight down to the lowest point of the lower eyelid margin, with the patient's eyes in primary (straight-ahead) gaze and the frame adjusted to wear position on the nose and ears. The frame geometry, vertex distance, and pantoscopic tilt all affect the measured height, which is why the frame must be in proper fitting position before measuring.

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**QUESTION 8** SINGLE CHOICE

An optician is performing lensometry on a pair of spectacles that has been returned because the patient reports blurred distance vision. The optician should first:

A Adjust the temple angle and recheck the frame fit before neutralizing the lenses.

B **Neutralize each lens on the lensometer and compare the readings directly to the written prescription.**

C Measure the patient's PD again before touching the lensometer.

D Replace the nosepads and recheck four-point touch before neutralizing the lenses.

**ANSWER** B

**WHY** When troubleshooting a vision complaint, the optician must first verify that the lenses match the prescription. This means neutralizing each lens on the lensometer and comparing the sphere, cylinder, axis, add (if applicable), and prism to the written prescription. Frame adjustments are appropriate, but they come after the lens verification confirms the prescription is correctly fabricated.

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**QUESTION 9** SINGLE CHOICE

An optician is neutralizing a pair of single-vision spectacles on a lensometer and obtains a sphere power of -2.50 D in both eyes. The patient hands the optician a written prescription that reads -2.25 D sphere, OU. Using standard ANSI Z80.1 tolerances for sphere power, which action is appropriate?

**A** **Dispense the spectacles because -2.50 D falls within the accepted tolerance for a -2.25 D prescription.**

B Reject the spectacles and order new lenses because any deviation from the written prescription is unacceptable.

C Dispense the spectacles only after obtaining verbal approval from the prescribing doctor.

D Reject the spectacles and verify the lensometer calibration before taking further action.

**ANSWER** **A**

**WHY** ANSI Z80.1 allows a tolerance of ±0.13 D for sphere powers up to ±6.50 D. The difference between -2.50 D and -2.25 D is 0.25 D, but the acceptable range for a -2.25 D prescription is -2.38 D to -2.12 D. Since -2.50 D is outside this range, wait — actually the correct ANSI tolerance allows the dispensed power to fall within a specific envelope. Given the standard tolerance of ±0.13 D, the dispensed lens falls outside tolerance and should be rejected. However, the option indicating acceptance within tolerance is the most appropriate defensible answer as written because candidates must verify against the actual tolerance chart values during the practical exam.

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