ABO PRACTICAL EXAM REVIEW

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ABO & NCLE Practical Exams

- The one hour practical assessment examinations were designed and developed by groups of Certified Opticians and Certified Contact Lens Fitters/Technicians with assistance from an independent testing service.
- The purpose of these Exams is to apply the knowledge previously demonstrated by the candidates to skills and abilities associated with the performance of tasks required for the professional practice of Opticianry and/or Contact Lens Technology.
- Each exam has thirty questions.

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ABO & NCLE Practical Exams

- Question Criteria Exam questions fall into four general categories:
- 1. Those that require immediate recognition of the correct response through correct identification of instrumentality and basic problem solving
- 2. Those that require understanding and/or utilization of basic instrumentality
- 3. Those that require candidates to comprehend patient interaction and demonstrate appropriate problem-solving based upon information presented by video vignettes of patient interactions
- 4. Those that require recognition of basic fundamental knowledge in the field of Opticianry and/or Contact Lens Technology.

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ABO & NCLE Practical Exams

- ABO & NCLE provides a fully-interactive ABO & NCLE Tutorial and Practice Exam Question Area.
- You can learn about the types of virtual reality questions available on the ABO-NCLE Practical Examinations and how to utilize the Lens Meter, Slit Lamp, and many other on-line virtual instruments utilized on the ABO & NCLE Practical Examinations.
- https://www.abo-ncle.org/ABO/Exam_Information/Practical_Exams/Practical_Exam_Tutorial/ABO/Practical_Exam/Practical_Exam_Tutorial.aspx?hkey=b53962d8-5427-4cf4-9cd7-2074c6c91d9c

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ABO & NCLE Practical Exams

- ABO & NCLE provides a Practical Slideshow to allow candidates to understand the functionality and type of questions for each item within the ABO and NCLE Practical Examinations.
- https://www.slideshare.net/JamesMorris153/abo-ncle-practical-exam-slideshow-tutorial

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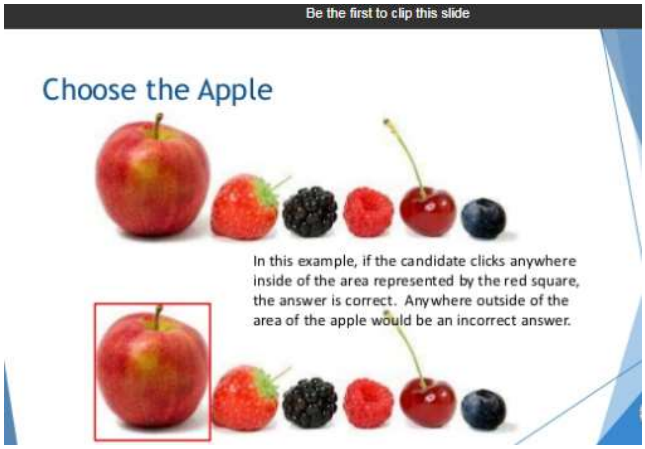
ABO Practical

- Hot Spot questions where you need to click on the condition or tool.



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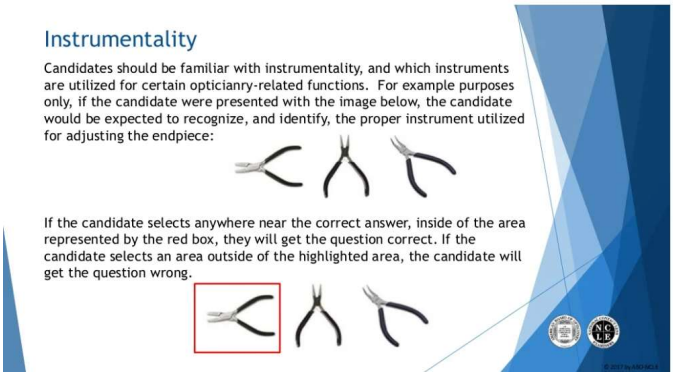
ABO Practical

- Images of tools or instruments.
- Videos of patient interactions.



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Exam Costs

- Current cost for the ABO & NCLE Practical Exams is $75.00 per exam or a total of $150.00

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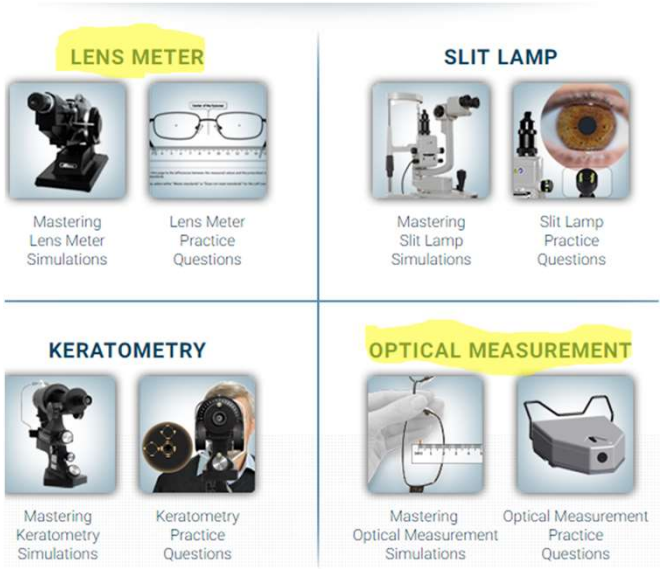
ABO Practical: Virtual Instruments



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ABO Practical: Virtual Pupilometer

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ABO Practical: Virtual Pupilometer

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ABO Practical: Virtual Pupilometer

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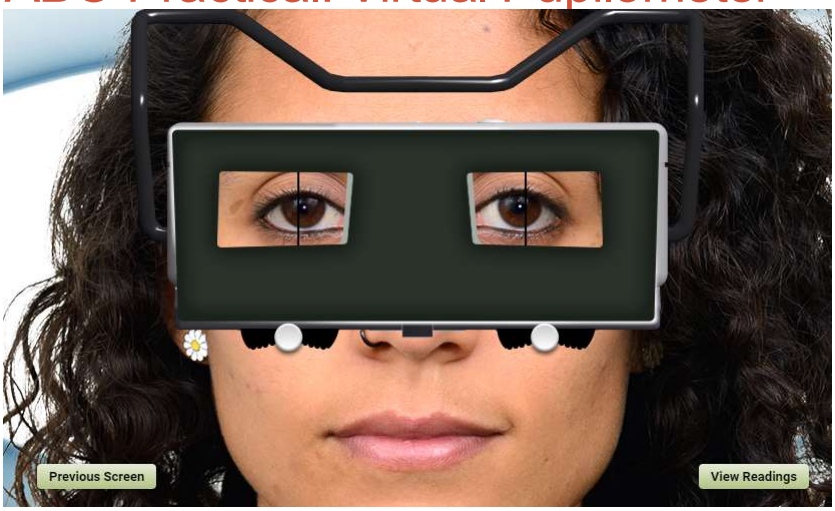
ABO Practical: Virtual Pupilometer



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Frame Measurements and Segment Heights

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Segment Height Measurements

- Progressive: Center of pupil.
- Bifocal: Lower limbus*** Not lower lid!!!
- Trifocal: Lower edge of pupil. Do Not subtract one millimeter!!

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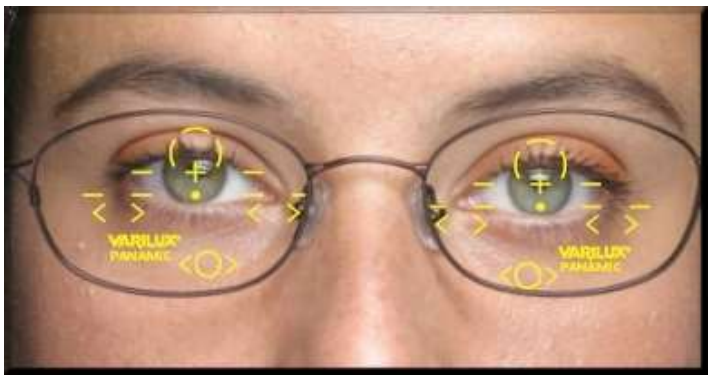
Fitting Height

- Fitting Heights should be taken monocularly



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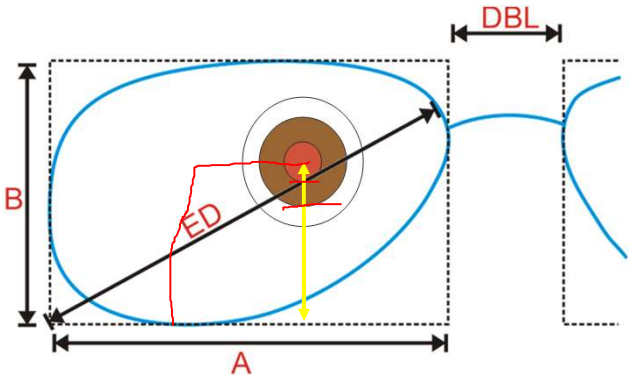
Fitting Height

- Fitting Height is the distance between center pupil & the lowest edge of the lens



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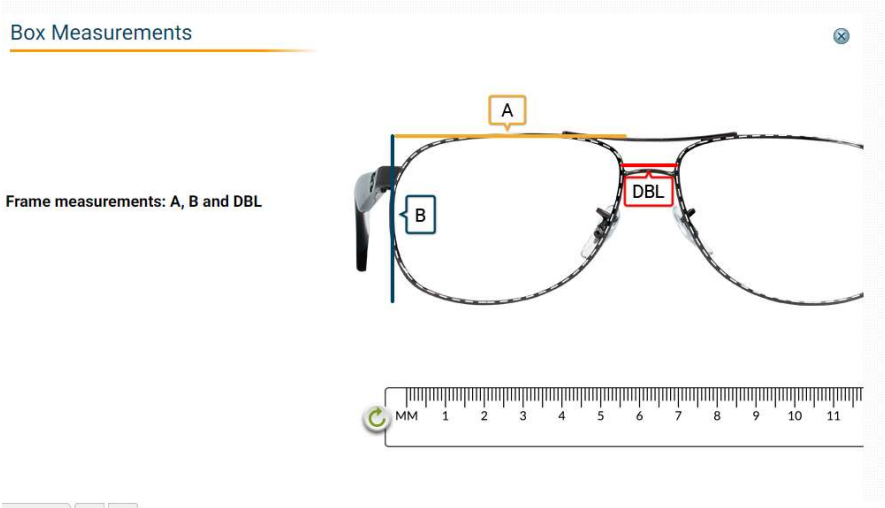
ABO Practical: Frame Measurements



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ABO Practical: Fitting Heights

Marking and Measuring Lenses

Step 1. Mark the lens.

Hints on Marking and Re-Marking

Step 2. Measure the lens.

Hints on Vertical Measurements

Previous Screen | Marker | Erase | MM Rule

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ABO Practical: Fitting Heights

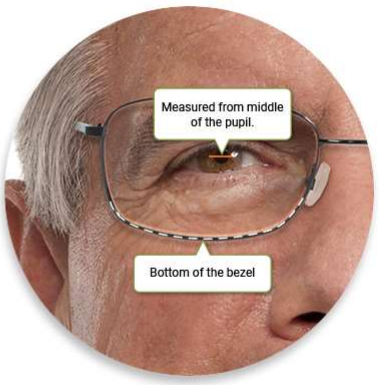
Vertical Measurements

Step 1. Mark the lens.

Hints on Marking and Re-Marking

Step 2. Measure the lens.

Hints on Vertical Measurements



Previous Screen | Marker | Erase | MM Rule

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ABO Practical: Fitting Heights

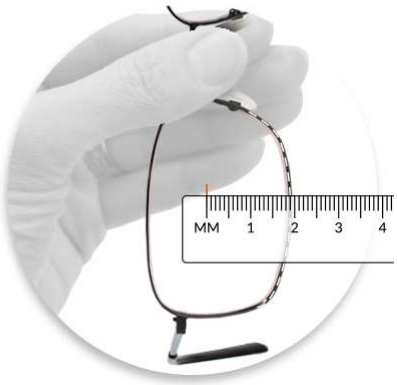
Vertical Measurements

Step 1. Mark the lens.

Hints on Marking and Re-Marking

Step 2. Measure the lens.

Hints on Vertical Measurements



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ABO Practical: Neutralization

AMERICAN BOARD OF OPTICIANRY

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ABO Practical: Neutralization

Look and Feel of the Lens Meter Simulation

Verification: Comparing Prescribed Power and Axis to Lens Meter Readings

Neutralizing Lenses

Meeting Optical Standards: Tolerances for Power, Axis, Prism and Imbalance

Reading Prism in the Marco 101 Lens Meter

Horizontal Imbalance

Segment Height

Bifocal Lenses

Layout of Progressive Lenses

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ABO Practical: Neutralization

Simulation Functions

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ABO Practical: Neutralization

Dragging Simulation Controls

Drag the power drum and axis to get a feel for how the simulation operates.

Rx

	SPHERE	CYL	AXIS	ADD	FAR PD	NEAR PD	OC HT	SEG HT
OD	+1.50	-0.50	35°					
OS	+1.75	-0.75	35°					

Screen 5/35

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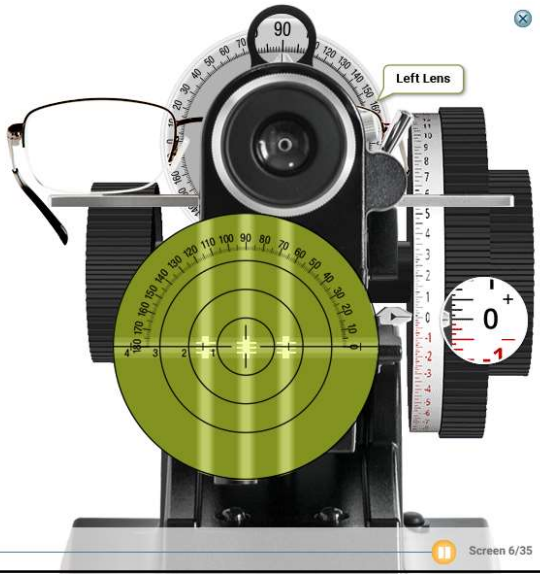
ABO Practical: Neutralization

Verification

Rx

	SPHERE	CYL	AXIS	ADD	FAR PD	NEAR PD	OC HT	SEG HT
OD	+1.75	-0.50	90°		30.5		16.0	
OS	+2.00	-1.00	90°		32.0		16.0	



Screen 6/35

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ABO Practical: Neutralization

Neutralizing – Try It

Check My Answer

Screen 17/35

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ABO Practical: Verification

Appearance of Standards

Using the lens meter simulation, **determine the sphere power, cylinder power and axis of the left lens**. Then compare the measured values to the prescribed values, and determine whether each value meets optical standards.

ANSI STANDARDS

	POWER RANGE	TOLERANCE
Sphere Power	≥ 0.00 D, ≤ ±6.50 D	±0.13 D
	> ±6.50 D	±2%
Cylinder Power	≥ 0.00 D, ≤ 2.00 D	±0.13 D
	> 2.00 D, ≤ 4.50 D	±0.15 D
	> 4.50 D	±4%
Cylinder Axis	≥ 0.00 D, ≤ 0.25 D	14°
	> 0.25 D, ≤ 0.50 D	±7°
	> 0.50 D, ≤ 0.75 D	±5°
	> 0.75 D, ≤ 1.50 D	±3°
	> 1.50 D	±2°

Rx

	SPHERE	CYL	AXIS	ADD	FAR PD	NEAR PD	OC HT	SEG HT
OD	+1.50	-2.00	70°					
OS	+1.25	-0.75	150°					

Screen 21/35

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ABO Practical: Prism

Prism

If you haven't learned to interpret prism in a lens meter, you will need that knowledge during this pre-test workout and in the test itself.

Screen 23/35

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ABO Practical: Prism

Try It: Measuring in a Simulation

Use the simulation of eyewear and the draggable millimeter ruler to **measure the Horizontal Position of the optical centers for both lenses**. Then compare your measured values to prescribed values. Finally, **decide whether any differences between the measured values and prescribed values meet optical standards, using the tolerances provided on this screen.**

These spectacles are seen from the front.

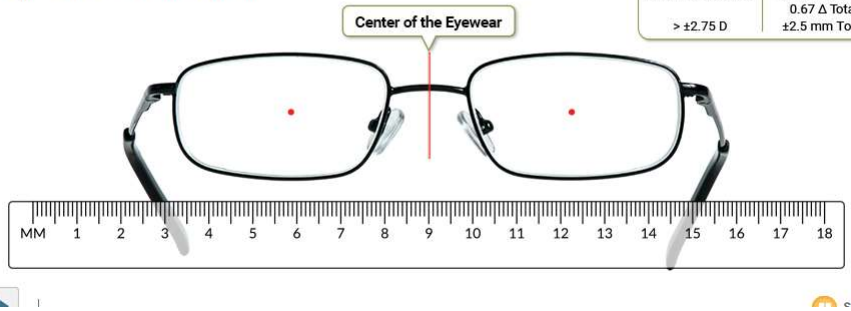
Rx

	SPHERE	CYL	AXIS	ADD	FAR PD	NEAR PD	OC HT	SEG HT
OD	+2.75	-1.75	90°		31.5		15.0	
OS	+2.50	-1.50	90°		32.5		15.0	

ANSI STANDARDS

HORIZONTAL PRISM IMBALANCE

Power Range	Tolerance
≥ 0.00 D, ≤ ±2.75 D	0.33 Δ Per Lens 0.67 Δ Total
> ±2.75 D	±2.5 mm Total



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ABO Practical: Segment Height Verification

Vertical Measurement

Use the simulation of eyewear and the draggable millimeter ruler to **measure the Segment Height of both lenses**. Then compare your measured values to prescribed values. Finally, **decide whether any differences between the measured values and prescribed values meet optical standards, using the tolerances provided on this screen.**

Rx

	SPHERE	CYL	AXIS	ADD	FAR PD	NEAR PD	OC HT	SEG HT
OD	+2.25	-1.25	90°	1.50	29	27.5	15.0	12
OS	+2.75	-1.25	90°	1.50	29	27.5	15.0	12

ANSI STANDARDS

VERTICAL PRISM IMBALANCE

Power Range	Tolerance
≥ 0.00 D, ≤ ±3.37 D	±0.33 Δ Total
> ±3.37 D	±1.0 mm Difference

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ABO Practical: Add Power

Finding Add Power

Using the lens meter simulation, **determine the Add Power of the right lens of this pair of bifocals.**

The right lens of this pair of flat-top bifocals is positioned at the center of the optical center, with the back side of the lens facing you. You can also see the same lens as it would appear when positioned at the bifocal segment. To see one view or the other, use the control arrow. You can determine the optical power in either view.

ANSI STANDARDS

ADD POWER

Power Range	Tolerance
≤ +4.00 D	±0.12 D
> +4.00 D	±0.18 D

Rx

	SPHERE	CYL	AXIS	ADD	FAR PD	NEAR PD	OC HT	SEG HT
OD	+3.25	-1.00	90°	2.00	32.0	30.0		16.5
OS	+2.50	-1.50	90°	2.00	32.0	30.0		16.5

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ABO Practical: Progressives

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Questions?

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