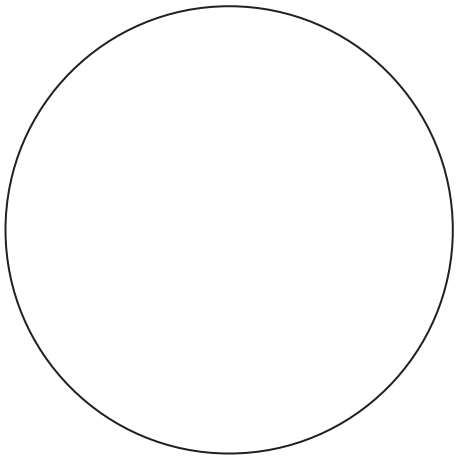
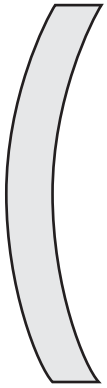
Lens Types

Single Vision



Single vision lenses have one viewing zone on the lens – for either distance or for near.



Plus (+) Lens

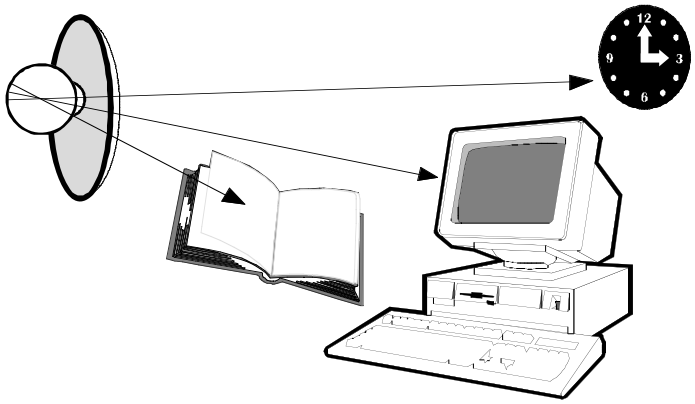
- Thicker in center
- Thinner on the edge
- Magnifies objects
- Corrects hyperopia
- Converges light rays

Minus (-) Lens

- Thinner in center
- Thicker on the edge
- Minifies objects
- Corrects myopia
- Diverges light rays

Multifocal Lenses

A multifocal lens corrects for **presbyopia**. Multifocal lenses have more than one range of focus.



The above illustration indicates the range of vision that the eye views through a lens:

- **near** – (up to 18") represented by the book
- **intermediate** – (18" to arm's length) represented by the computer monitor
- **distance** – (arm's length to infinity) represented by the clock on the wall

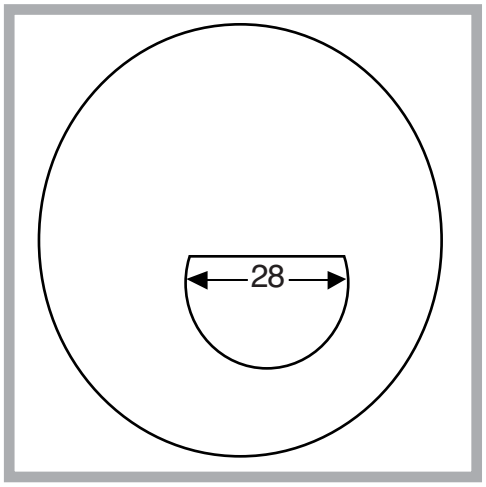
Bifocal Lenses

A bifocal lens is a type of multifocal which provide two distinct powers – usually for near vision and for distance. The top portion of the lens allows wearers to see objects in the distance, while the bottom portion – the **segment** – provides viewing at near for tasks such as reading. This lens provides no intermediate range of vision for the wearer (i.e. 18 inches to arm's length).

Most Common Bifocal Lenses

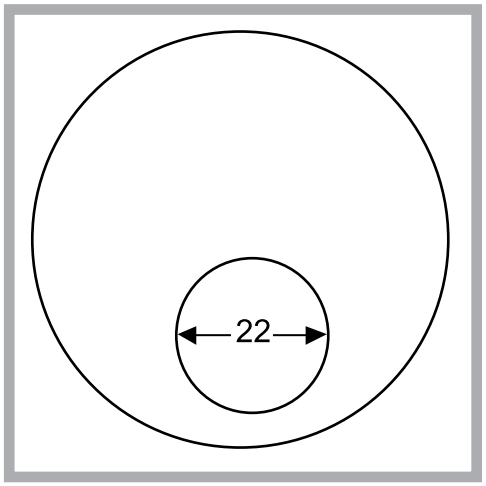
Flat-Top

This bifocal is so named because of its shape. The most common is the FT28 and FT 35. The number after "FT" represents the measurement, in millimeters, at the widest portion of the bifocal segment.



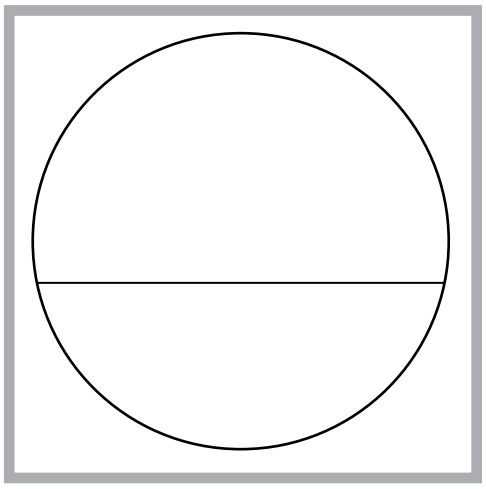
Round Segment

This lens also gets its name from its shape. The reading power is in the bottom of the lens. This type of multifocal provides limited areas of near vision. The widest portion of the segment is either 22 or 24 mm.



Executive

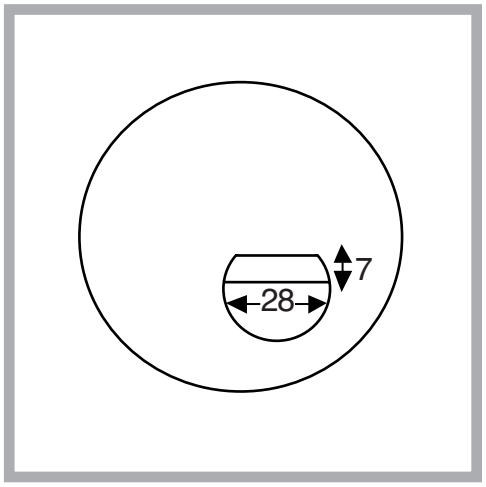
This bifocal provides the largest reading area of any multifocal. However, caution should be used in recommending an executive bifocal as it is heavier and thicker than other bifocals.



Other Multifocals

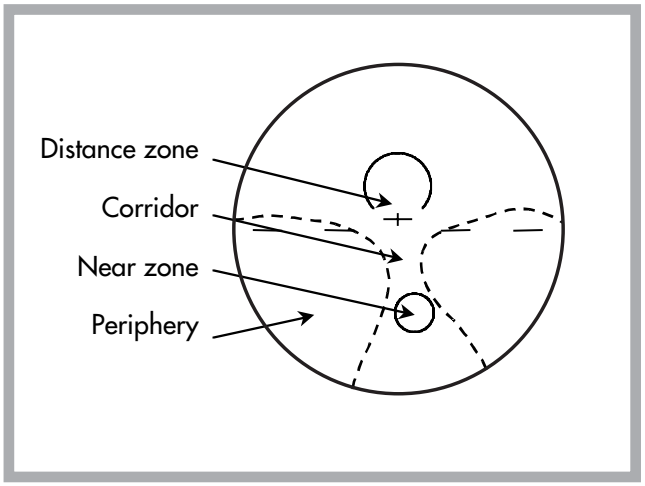
Flat-Top Trifocal

A trifocal has three powers: for distance, near, and intermediate. Just like the flat-top bifocal, this lens segment is flat on top. The most common flat-top trifocals are: FT28 mm (7x28 mm) and FT 35 mm (8x35 mm). Again, the 28 and 35 indicate the widest portion of the segment, in millimeters, while the 7 and 8 represent the depth of the intermediate segment in millimeters.



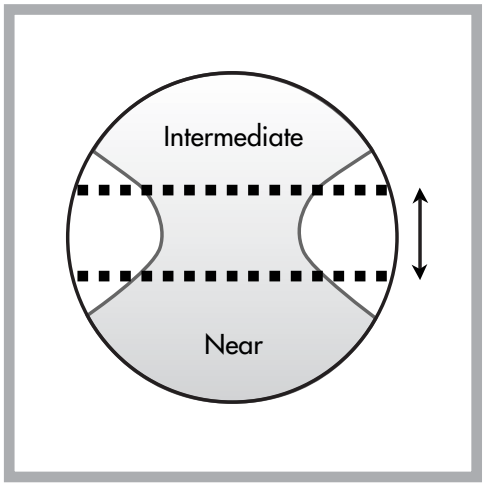
Progressive Lens

Progressive lenses provide clear, continuous vision at all viewing distances. They duplicate most closely natural vision. For example, the wearer can read a map, see a car's dashboard and read road signs without unnecessary head movement.



Computer Lens

Two power ranges permit the wearer a wide, clear view at intermediate and at near. This lens does not provide distance vision however, and should not be recommended as a primary lens.



Prescriptions

When accepting a prescription, the following information must be included on the written Rx. If it is not, the prescription should not be accepted.

- Doctor's name
- Doctor's signature
- Examination date
- Expiration date (check state laws)

A spectacle Rx contains important information that ensures the patient will get lenses with the best vision correction. Prescriptions are for either single vision lenses or multifocal lenses.

Single Vision Rx

- The first number on the prescription is the **sphere power**

  -1.00 -0.50 x 160

Doctor's Name: _____ Date: _____

Prescription

	Sphere	Cylinder	Axis	Add	Prism	OC
OD						
OS						

P.D.						
OD						
OS						

Doctor's Signature: _____

Expiration Date: _____

- The second number is the **cylinder power** (for astigmatism)

  -1.00 **-0.50** x 160

Note: many doctors of optometry (O.D.s) write cylinder power as a minus (-) number while doctors of ophthalmology (M.D.s) write cylinder power as a plus (+) number.

Doctor's Name: _____ Date: _____

Prescription

	Sphere	Cylinder	Axis	Add	Prism	OC
OD						
OS						

P.D.						
OD						
OS						

Doctor's Signature: _____

Expiration Date: _____

- The third number is the **axis** at which the cylinder power is located on the lens

  -1.00 -0.50 x **160**

Note: **OD** means right eye
OS means left eye
OU means both eyes

Doctor's Name: _____ Date: _____

Prescription

	Sphere	Cylinder	Axis	Add	Prism	OC
OD						
OS						

P.D.						
OD						
OS						

Doctor's Signature: _____

Expiration Date: _____

Multifocal Rx

A multifocal Rx contains the same information as a single vision prescription, plus, it indicates add power which corrects for presbyopia.

-1.00 -0.50 X 160 /**+2.00 add**

Doctor's Name: _____ Date: _____

Prescription

	Sphere	Cylinder	Axis	Add	Prism	OC
OD						
OS						

P.D.						
OD						
OS						

Doctor's Signature: _____

Expiration Date: _____