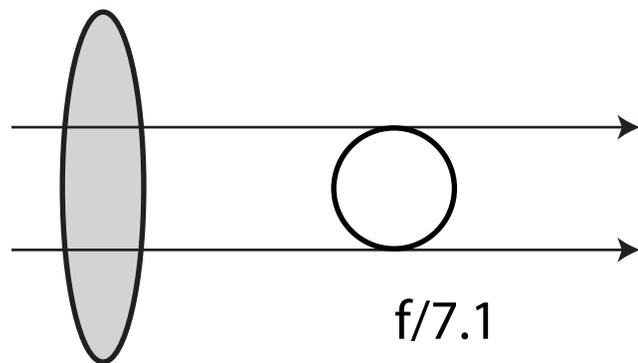
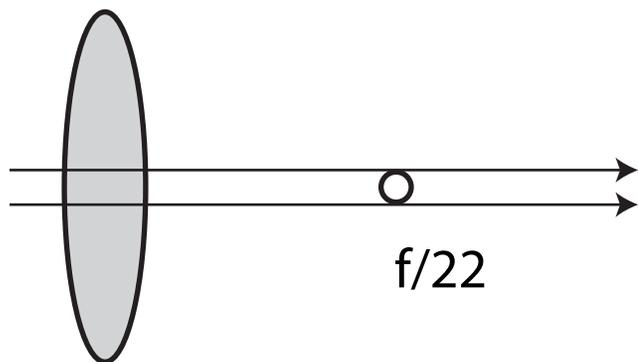


The full circle represents the aperture of a 85mm, f/2.8 portrait lens set to f/2.8 using Aperture Priority mode. This is a moderately "fast" lens that captures enough light to allow the use of higher shutter speeds to stop action in places that are not well illuminated. Also, at f/2.8, the lens has a narrow depth of field: only 3.3 inches when focused to eight feet. This narrow depth of field allows us to take portraits with "soft" (out of focus) background. A visually appealing, soft background is said to have a pleasant Bokeh (Bo - ka), Boke is Japanese for haze). Apertures with nine or more blades produce the best Bokeh.



Here the aperture of the f/2.8 lens has been set to f/7.1. It has been "stopped down" two "stops." Each stop reduces the amount of light passing through the lens by half. To maintain the same exposure used above, the camera, when set to "A" (Aperture Priority Mode) will automatically lengthen the shutter speed. What is the benefit of using this narrower aperture? First, we get obtain a longer depth of field (8.5 inches at 8 feet). Second, we are now using the "sweet spot" of the lens, its sharpest and most distortion free center.



In this case, we have selected f/22, the smallest aperture available when using many lens. This very small aperture greatly restricts the amount of light passing through the lens. To maintain the same exposure as above, we may have to use a tripod, as our shutter speed may be only 1/25s (one-twenty-fifth of a second) or slower. Our available depth of field is now very long. If we focus to 20 feet, everything from 15 to 32 feet will be in focus. Light will diffuse somewhat when passing through the very small opening, reducing the sharpness of an image somewhat.