**HW #6a: Due April 6, 2015 in Class**

**Problem 1:**

An F/5, ±20°, 100 mm diameter optical system has its best image at 0.7 full field (H=0.7) at 150 microns inside paraxial focus (δz = -150μm). Only 3rd order field curvature is present.

**a.** What is the field curvature wavefront error in waves (λ = 0.5μm)?

**b.** What would be the blur diameter at full field at the paraxial image plane (δz = 0)?

**Problem 2:**

For the triplet lens with specification below:

**a.** Calculate the Petzval surface curvature.

**b.** Compare the value in (**a.**) to a thin lens of efl = 100, index = 1.639.

