

# Reverse - Telephoto Ray trace

$$f_1 = -63.6364 \quad \phi_1 = -.015714$$

$$f_2 = 34.7222 \quad \phi_2 = .028800$$

$$t = 50$$

Trace a ray parallel to the axis

	0	1	2	3
				F'
f		63.6364	34.7222	
- $\phi$		.015714	-.028800	
t	$\infty$	50	?	
			50.0	
y		1	1.78571	0
u		0	.015714	-.035715

$$\text{BFD} = 50.0$$

$$u' = -.035715$$

$$\phi = -u'/y_1 = .035715$$

$$f_e = 28.0$$

$$d' = \text{BFD} - f'_R = 22.0$$

$$f'_R = 28.0$$

Gaussian Reduction:  $\phi = \phi_1 + \phi_2 - \phi_1 \phi_2 t$

$$\phi = .0357$$

$$f_e = f'_R = \underline{28.0}$$

$$d' = -\frac{\phi_1}{\phi} t = \underline{22.0}$$

Agreement

Sketch

