## ASTR 680 Practice questions for lecture 12: Evidence for BH 2, AGN

1. Derive equation (4), and show that the maximum  $\beta_{obs}$  occurs when  $\cos \theta = \beta$ .

2. We say in the notes that the ratio between the frequency-integrated specific intensity of a jet toward us can be vastly greater than that of a jet away from us. Is there any way that the jet away from us can nonetheless be made visible?