

6. An excellent discussion and equation development related to this problem is given in Sample Problem 6-3. We merely quote (and apply) their main result (Eq. 6-13)

$$\theta = \tan^{-1} \mu_s = \tan^{-1} 0.5 = 27^\circ$$

which implies that the angle through which the slope should be *reduced* is  $\phi = 45^\circ - 27^\circ \approx 20^\circ$ .