QUIZ NO. 13

NAME_____Score_____/10

The open-loop transfer function of a negative feedback system is given as,

$$T(s) = \frac{A_o}{\left(\dfrac{s}{1000}+1\right)\left(\dfrac{s}{10,000}+1\right)}$$

What value of A_o gives a phase margin of 45°? You can solve this problem graphically or the relationship $\tan^{-1}(a) + \tan^{-1}(b) = \tan^{-1}[(a+b)/(1-ab)]$ may be of used to solve it algebraically.