$Remark\ Theorem[section]\ Problem\ Proposition[section]\ Lemma[section]\ [theorem]\ Corollary\ Example[section]\ [problem]\ Definition$ 

1. If -5 is a root of the quadratic equation  $2x^2 + px - 15 = 0$  and the quadratic equation  $p(x^2 + x) + k = 0$  has equal roots, find the value of k.