This talk is to demonstrate that the famous Kadomtsev-Petviashvili II-type equation for water waves which are weakly three-dimensional and propagating predominantly in one-direction can be derived formally from the three-dimensional Boussinesq system (see Bona, Chen and Saut (2002)). The relationship between the dispersion relations of Euler equations, Boussinesq systems and KP equations are also analyzed. (Received September 21, 2011)