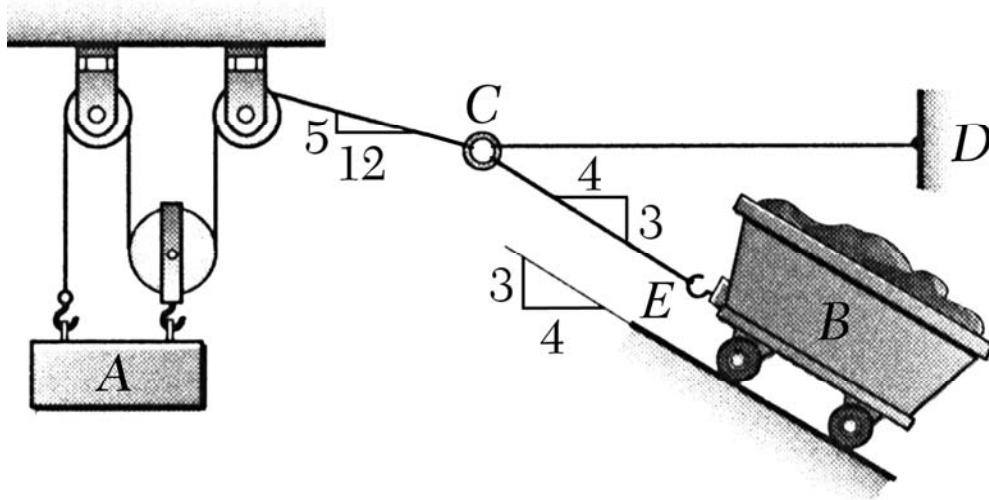The system shown is in equilibrium and the tension in cable *CD* is known to be 24 lb. Determine *(a)* the tension F_1 in the cable whose slope is – 5/12, *(b)* the tension F_{CE} in cable *CE*, *(c)* the weight W_A of block *A*, *(d)* the weight W_B of cart *B*.

FBD for ring connector at *C*: ①

$F_1 = 58.5$ lb ①

$F_{CE} = 37.5$ lb ①

FBD for block *A* and the pulley just above block *A*: ①

$W_A = 175.5$ lb ②

FBD for cart *B*: ②

$W_B = 62.5$ lb ②