

**Homework H.4.K**

**Given:** Block B (of mass  $2m$ ) is able to slide along a smooth horizontal surface. Block A (of mass  $m$ ) is able to slide along the rough top surface of block B, as shown in the figure. Initially, A is traveling to the right with a speed of  $v_{A1}$ , and block B is traveling to the left with a speed of  $v_{B1}$ .

**Find:** Determine the velocity of block B when block A has to come rest relative to block B.

