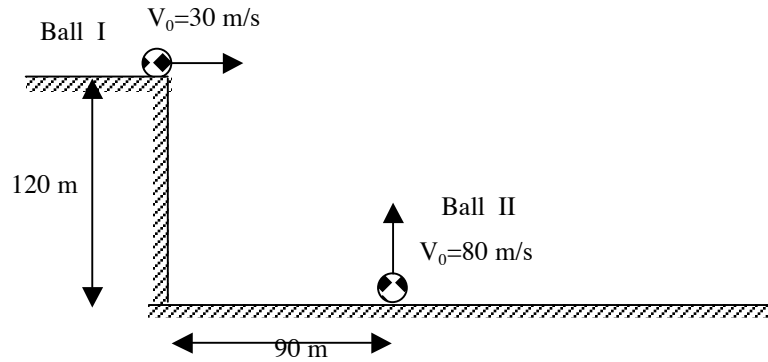
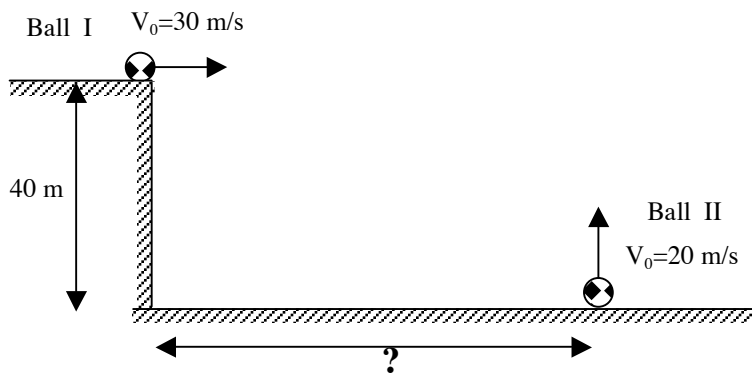


**W2.07-H****PROJECTILES 3**

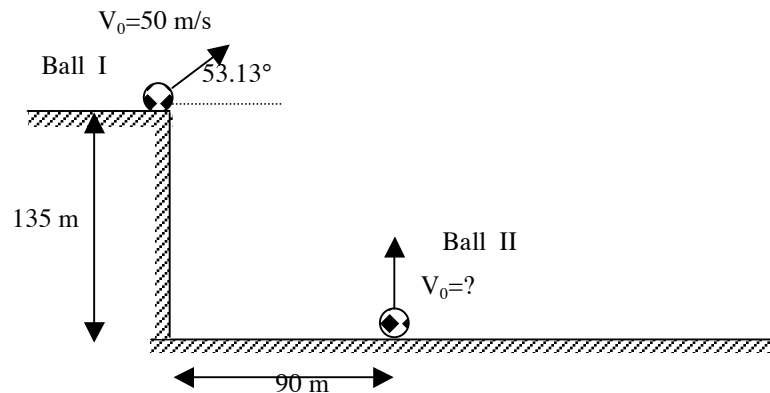
1] Relative to when ball I is shot, when should ball II be shot so that the two balls collide in the air?



2] If both balls are shot at the same time and hit in mid-air, how far from the base of the cliff was ball II when it was shot?

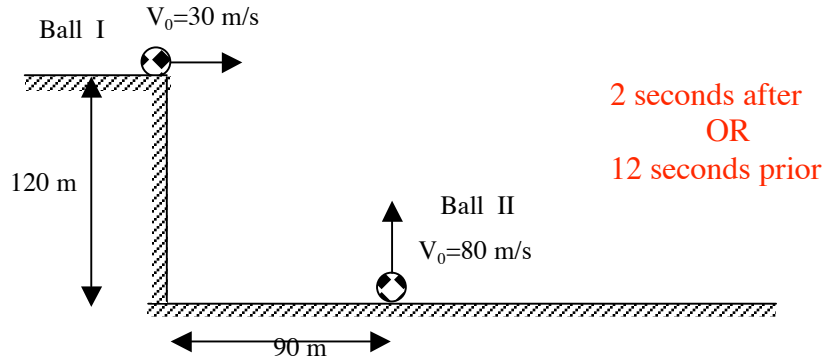


3] Relative to when ball I is shot, when should ball II be shot so that it hits ball I just when it (ball II) reaches its peak?



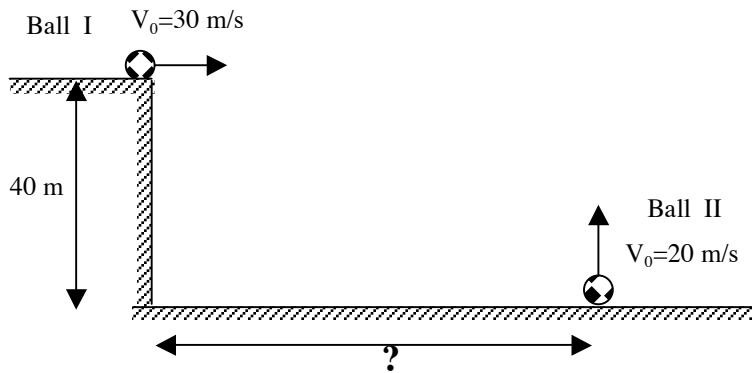
**W2.07-H****PROJECTILES 3 - KEY**

1] Relative to when ball I is shot, when should ball II be shot so that the two balls collide in the air?



2] If both balls are shot at the same time and hit in mid-air, how far from the base of the cliff was ball II when it was shot?

60 meters away [relative motion: vertical close at 20 m/s ie  $t=2 \text{ s}$ ]



3] Relative to when ball I is shot, when should ball II be shot so that it hits ball I just when it (ball II) reaches its peak?

64.81 m/s [ $t=3 \text{ s}$   $\Delta s_{yII} = +210\text{m}$ ]

