PHYS 105

In-class exercise 9.2(b)

Suborbital Motion: Shooting into Orbit

Now let's go for broke! Keeping θ fixed at 20°, increase v_0 until the projectile is moving faster than Earth's *escape speed* $\sqrt{2GM/r}$ at an altitude of 100 km. Compare this value of v_0 to the escape speed at Earth's surface. How do you account for the difference?