

## 7. JUST FOR THE FUN OF IT

### Falling without Air Friction

1. In the lab, you will find a clear cylindrical tube containing a feather and a coin. Flip the tube vertically, to determine which falls faster: the feather or the coin.

2. Next, use a vacuum pump and a hose to evacuate the cylindrical tube. Repeat the same experiment as in (1) above. In the evacuated tube, which falls faster: the feather or the coin?

[a] Does the acceleration during free fall depend on the mass of the falling object?

[b] Does the force on a mass during free fall depend on the mass of the falling object?