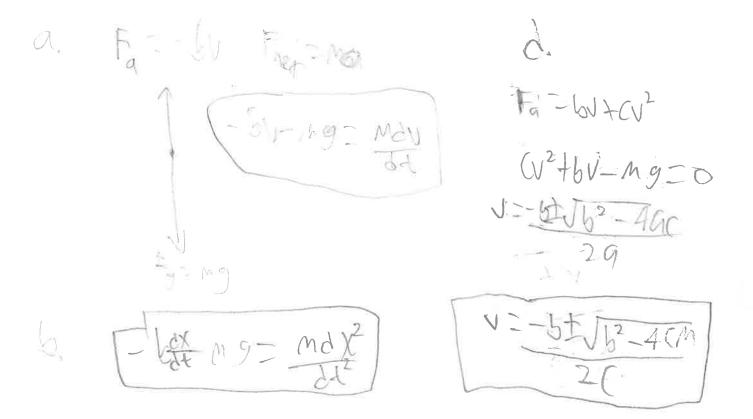
- 2. A sky-diver of mass, m, opens her parachute and finds that the air resistance, Fa, is given by the formula Fa= bv, where b is a constant and v is the velocity.
 - a. Set up, but do not solve a differential equation for her velocity as a function of time.
 - b. Set up, but do not solve a differential equation for distance as a function of time.
 - c. Find the terminal velocity in terms of m, b, and g.
 - d. If in a different situation the formula for air resistance were $Fa = bv + cv^2$, where c is another constant find the terminal velocity in terms of the above plus c.
 - e. If you are in Calc 2, solve the differential equations from parts b and c.



(, Fa= 6V V= 45 V= 45