1) A 1600-lb elevator is suspended by a 200-ft cable that weighs 10 lb/ft. How much work is required to raise the elevator from the basement to the third floor, a distance of 30 ft?.

2) Let  $f(x) = x^5 + x^3 + x$ . Assume that this function is one-to-one. Determine  $(f^{-1})'(-3)$ .