# Problems of the Week 3

**Always show your work to receive credit (NO WORK=NO CREDIT)**
1. A force F is pulling 80 railroad cars of equal mass M. Calculate the force $F_{32}$ on last 48 cars.
    A. F                     B. 0.6F           C. 0.4F           D. 0.3F

2. A 65kg painter stands in the middle of a 35kg platform and pulls herself up by two ropes that hang over pulleys (see below). Calculate her acceleration if she briefly pulls with a force of 270N on each rope.
    A. 0.60m/s$^2$ upward
    B. 1.0m/s$^2$ upward
    C. 5.8m/s$^2$ upward
    D. 0.42m/s$^2$ downward
    E. 4.4 m/s$^2$ downward