

**Problem Set 0**  
**due 24 Aug 2018**

**Instructions:**

1. Answer all questions below
2. Show your work for full credit.
3. All problems are due by 11:59pm on 24 Aug 2018.
4. You may collaborate, but everyone must turn in their own work.

1. You throw a ball upward. After half of the time to the highest point, the ball has covered what fraction of its maximum height? Ignore air resistance.
2. A ball is dropped, and then another ball is dropped from the same spot one second later. As time goes on while the balls are falling, what is the distance between them at any given time? (Ignoring air resistance, as usual.)