1. (a) Initial margin is $25,000 (0.5*$50,000).
   (b) The margin call comes when the price reaches $P$ which solves
   \[
   \frac{75,000 - 1000P}{1000P} = 0.25
   \]
   Solving this gives $P=$60.

2. You will buy 200 shares at $78, 600 at shares $79 and 200 shares at $80. The total cost is $79,000.

3. (a) $38.00.
   (b) May 18, 2012: $38.22.
   August 17, 2012: $19.05.
   September 18, 2018: $160.30.
   (c) The first day change was unusually small for an IPO. There was barely any “pop”.
   (d) It is usual for share prices to decline after IPOs. Actually the magnitude of this decline was unusually big, but I was just looking for people to say that the decline was expected. Of course, the investor who held on for the next 6 years did just fine.

4. (a) The US. $100 invested in 1969 would be worth $12,462.25 on September 30, 2019.
   (b) Italy. $100 invested in 1969 would be worth $1,237.32 on September 30, 2019.