**Problems**

Some organizations are looking to make a lot of money off of the flu vaccine that is in such high demand. A survey done last week reported that 55% of 677 hospital pharmacists who responded reported being offered the vaccine at highly inflated prices. Of those, 84% said they would not buy the vaccine at those prices. How many of the 677 hospital pharmacists did not say that they would not buy the vaccine at the high prices? Express your answer to the nearest whole number.

Before the shortage of the vaccine was announced, hospitals could purchase a 10-dose vial for about $80. Then patients were charged about $15 per dose. As you can see, patients paid more for the 10 doses than it cost the hospital, and we’ll refer to this extra money as the hospital’s profit. If the same vial is now selling for $400, how much would the hospital have to charge each patient per dose in order to make the same percent of profit on the vial?

One organization was selling vials of the vaccine for $85 on October 1. After the shortage was announced, the price was up to $900 by October 8. If the cost of the vaccine on each day from October 1 through October 8 forms an arithmetic sequence, what was the cost on October 5? Express your answer as a decimal to the nearest hundredth.