1.
   a. Src: 31314
      Dest: 443
   b. Src:31314
      Dest:443
   c. Src:31314
      Dest:31314
   d. Src:31315
      Dest:31314
   e. The Husky Protocol is a protocol for manufacturing plant monitoring, "specifically for the needs of the plastics injection molding industry." From their website, Husky is an equipment supplier to the injection molding industry.
   f. The husky port protocol information was found https://www.husky.co/News.aspx?id=155 and the information about port numbers relevant to the Smartlink communication system was found https://setup.smartlink.pitneybowes.com/advancedTroubleshooting

2.
   a. The first step is to sum the three bytes. 10101001 + 11010011 + 01001100 = 1110010000. Then, in accordance with the way the 16 bit version is handled, the overflow is wrapped around giving us an 8 bit result of 11001001. From there, it is changed to the 1's complement : **00110110**.
   b. By sending the 1's complement, it enables an easy checksum on the other end. By adding up all the bytes in the same way as done in part a, the result can be added to the 1s complement. If this is done, and the resulting sum is all 1s, then the data has probably arrived in an unchanged format.
   c. A 1 bit error will be quite immediately apparent. If a bit has been changed from a 1 to a 0, then there will simply be a "hole" in the check of the checksum where a 1 is not present. If a 1 is changed to a 0, then it would also be apparent by the creation of an overflow bit. However, if two bits were changed within the message such that they were 16 bits apart (8 apart in the case of this example) the overall parity of that position in the checksum would remain the same and it would not be caught by the internet checksum alone.