Question 1

Step 1:

P1 = 11

P2 = 13

N = 11 x 13 = 143

Step 2:

phi(143) = 10 \* 12 = 120

Step 3:

e = 7

d = (6 \* 120 + 1) / 7 = 103

Public Key:

777 mod 143 = c = 77

Private Key:

77103 mod 143 = m = 77