Question #36683

What mass of silver chloride can be produced from 1.81L of a 0.161M solution of silver nitrate?

Solution:

1.81L of a 0.161M solution of silver nitrate contains $1.81 \cdot 0.161 = 0.291$ moles of silver. 1 mole of AgCl contains 1 mole of silver, so we can get 0.291 moles of silver chloride. And its mass would be $0.291 \cdot (35.5 + 108) = 41.76$ grams.

Answer: 41.76 grams of silver chloride can be produced