

2.67g of aluminium chloride was dissolved in water and an excess of silver nitrate solution was added to give a precipitate of silver chloride
 $\text{AlCl}_3 + 3\text{AgNO}_3 \rightarrow \text{Al}(\text{NO}_3)_3 + 3\text{AgCl}$ what mass of silver chloride precipitate would be formed?



$$n(\text{AlCl}_3) = \frac{2.67}{27 + (35.5 * 3)} = 0.202 \text{ mol}$$

$$n(\text{AgCl}) = 0.202 * 3 = 0.606 \text{ mol}$$

$$m(\text{AgCl}) = 0.606 * 143 = 86.658 \text{ g}$$

$$\mathbf{m(\text{AgCl}) = 86.658 \text{ g}}$$