4e.) 48.9 grams of calcium nitrate reacts with excess lithium phosphate in a double replacement reaction. What mass, in grams, of the precipitate calcium phosphate is produced? Lithium nitrate is also produced in this reaction.

48.9 g EXCESS! ? g

$$\underline{3}\ Ca(NO_3)_2 + \underline{2}\ Li_3PO_4 \rightarrow Ca_3(PO_4)_2 + \underline{6}\ LiNO_3$$

$$48.9\text{g } Ca(NO_3)_2 \left/ \frac{1\text{ mol } Ca(NO_3)_2}{164.1\text{g}} \right/ \frac{1\text{ mol } Ca_3(PO_4)_2}{3\text{ mol } Ca(NO_3)_2} \left/ \frac{310.18\text{g}}{1\text{ mol } Ca_3(PO_4)_2} \right.$$

$$= 30.8\text{g } Ca_3(PO_4)_2$$