Name: \_\_\_\_\_

In an experiment to determine the amount of vitamin C ( $C_6H_8O_6$ ) in a commercial tablet, 0.08 g of the tablet powder was reacted with  $I_3^-$ . The following reaction occurs:

 $C_6H_8O_6(aq) + I_3^-(aq) \rightarrow 3I^-(aq) + 2H^+(aq) + C_6H_6O_6(aq)$ 

If  $6.0 \times 10^{-4}$  mol of I<sup>-</sup> was obtained in the product, what is the mass percent of vitamin C in the tablet? You may assume 100% yield for the reaction above.

(The molecular mass of  $C_6H_8O_6$  is 176.13 g/mol.)