## AP/ECON 4070 3.0AF Midterm Exam Wednesday October 232013

$$
\text { time }=60 \text { minutes }
$$

Do all 3 questions. All questions count equally.

1. Is it possible that a $\$ 1$ excise tax on some good could lead to the total price paid by buyers of the good increasing by more than $\$ 1$ ? Explain briefly.
2. What would be the effect on income distribution in Ontario of a tax change in which workers' compensation premia (which are a proportional tax on wage income) were abolished, and the provincial sales tax rate was increased so as to keep provincial tax revenue the same? Explain your answer.
3. What is the excess burden (also known as the deadweight loss) of a $\$ 1$ tax on clothing, if the price of food were $\$ 1$, the original (no-tax) price of clothing were $\$ 1$, the consumer's income were $\$ 1000$, the consumer's preferences could be represented by the utility function

$$
U(F, C)=F+40 \sqrt{C}
$$

where $C$ is the quantity consumed of clothing and $F$ the quantity consumed of food, and her compensated demand curve for clothing had the equation

$$
C=\frac{400}{\left(P_{C}\right)^{2}}
$$

where $P_{C}$ is the (tax-included) price that she pays for clothing?
[Note : you will not need to use all the information given above in order to answer the question.]

