

Name &amp; SID: \_\_\_\_\_

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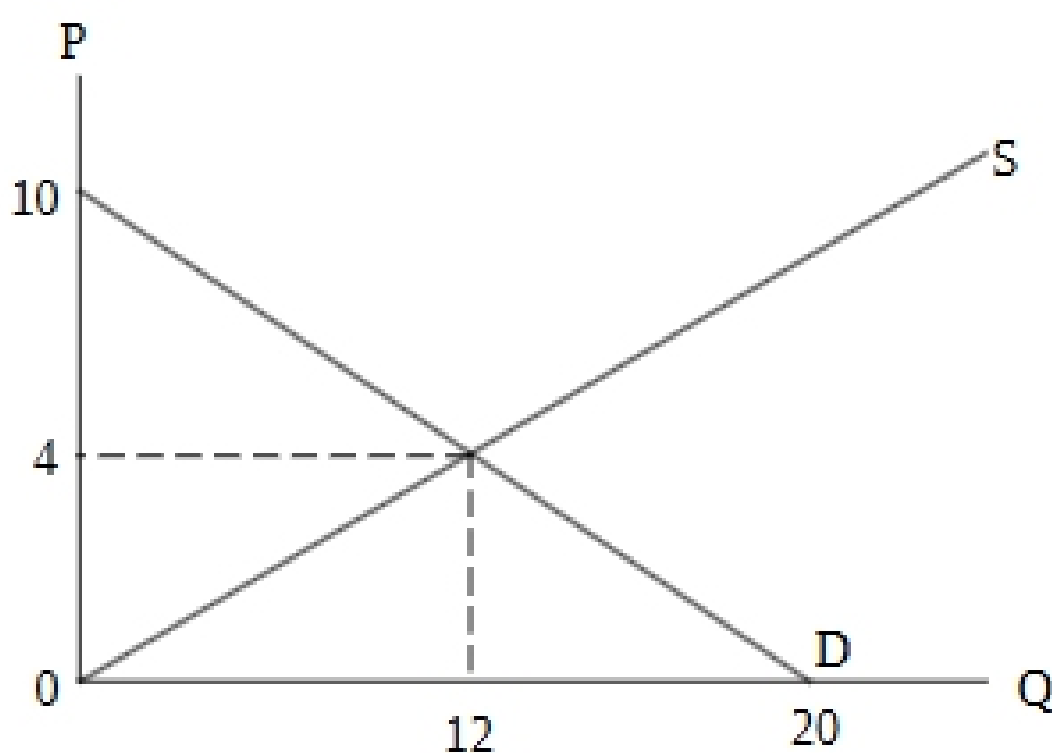
## Taxes and perfectly competitive markets

We have ignored the government's role in the economy for a vast majority of the course. Now we will relax this assumption, and allow the government to intervene in the market. The rule of thumb is that,

IF the demand and supply curves incorporate all the benefits and costs within a market, THEN government intervention almost always causes a DEADWEIGHT LOSS.

Please keep in mind the assumptions that we are making while you are doing the questions. Ask yourself, how will my answers change if supply was perfectly inelastic? If supply was perfectly elastic? If demand was perfectly inelastic? If demand was perfectly elastic?

1. The following market for beer is initially in equilibrium. The government wants to raise tax revenue to compensate for the state's large budget deficit. The government places a \$1 per-unit tax on the market for beer. Assume the tax is on producers. Show graphically the effects of this excise tax. Label the price consumers pay after the tax as  $P_1$ , the price the producers receive after the tax as  $P_2$ , and the quantity of beer purchased after the tax as  $Q'$ .





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10. Calculate dead-weight loss before the tax.

11. Calculate dead-weight loss after the tax.

12. Calculate the consumer tax burden.

13. Calculate the producer tax burden.

14. Who has the largest tax burden?

15. Why does a \$1 per-unit tax on producers not cause a \$1 increase in the price that consumers pay for beer? Assume a downward sloping market demand curve and an upward sloping market supply curve. A complete answer should have both a graph and a few sentences.