Text Questions

1. a. Personal consumption expenditures are relatively stable and represent approx. 2/3 of total spending. Investment spending fluctuates from year to year. Govt. spending is relatively stable and is approx. 18% of total spending. Export expenditures have exhibited moderate growth over the last 25 years and now make up approx 10% of total spending.
   
   b. Increases in T and S decrease C. TP and borrowing increase C.
   
   c. Increases in r decrease I; decreases in r increase I.
   
   d. G is a direct injection into the economy. TP initially affect income and thus indirectly affect total spending through C.
   
   e. Exports are a direct injection into the economy and cause output, employment, and income to increase. Imports are a leakage from the economy, and cause output, employment, and income to decrease.
   
   f. An increase in total spending will lead primarily to an increase in output if the economy is producing at less than its full employment level. If the economy is at or above the full employment level of output, an increase in total spending will lead to an increase in prices.

2. The multiplier effect is the larger change in total output and income generated by a smaller change in non-income determined spending. New dollars are introduced into the circular flow through the change in non-income determined spending. These new dollars are spent over and over again, thereby creating more output and more income. The multiplier effect decreases when the percentage of additional income not spent increases. Since fewer dollars are spent over and over again, the multiplier effect is less.

3. a. Output increases by $3b.
   
   b. Output decreases by $3.33b.
   
   c. Output increase by $3.2b.
   
   d. Output increases by $1.25b.
   
   e. Spending will increase but employment unchanged because the economy is at full employment.

4. a. regressive tax
   
   b. progressive tax
   
   c. proportional tax (could also argue for regressive tax; depends on the assumption that larger income earners own more valuable property than smaller income earners)
   
   d. regressive tax
   
   e. proportional tax
   
   f. regressive tax
   
   g. regressive tax

5. a. expand
   
   b. contract
   
   c. expand
   
   d. inflate
   
   e. expand
   
   f. stay the same
Problems

1. 
   a. Expected future output is a positive determinant of investment expenditures. If firms expect high levels of future output, they will be more inclined to invest in productive capacity now in order to be able to meet the future demand.
   b. Expected future income is a positive determinant of autonomous expenditures. Households spending decisions are made with a long time horizon. A household which anticipates higher in come in the future will be inclined to spend more today, even if it must borrow to do so. If things work out as expected, any borrowing (or saving shortfall) will be made up out of future earnings.
   c. An increase in the exchange rate will have an inverse effect on autonomous net exports. When the exchange rate rises, it makes domestic goods more expensive relative to foreign goods. The terms of trade increases. Relatively more costly domestic goods will cause purchasers to shift their purchases away from domestic goods toward foreign ones. This will cause exports to fall and imports to rise, reducing net exports.
   d. An increase in the money supply will tend to reduce interest rates. The interest rate is a component of the cost of capital for firms (adjusted for expected inflation, it is the real cost of borrowing to finance purchases of capital). Thus lower rates are an incentive to higher investment by firms. An increase in the money supply has a positive effect on investment.

2. 
   a. The multiplier effect results from the induced spending which occurs when higher output raises income in the economy. Following an initial stimulus to output, incomes will rise. Some of the income may go to taxes, some may be saved, and some may be used to purchase imports, but the rest will be spent on domestic goods. This induced consumption will lead to further output increases, starting the next round of the process.
   b. The strength of the multiplier effect depends directly on the amount of induced spending per dollar of additional income. This means that it depends inversely on the amount of income which is not spent domestically. In an open economy there are three main “leakages” from the income stream: taxes, imports, and saving. Consequently, a high income tax rate, a high marginal propensity to import, or a high saving propensity will yield a low multiplier.
   c. If investment rises as output increases, this will provide a second source of induced spending (in addition to induced consumption). In effect, part of the potential spending which is lost due to savings and taxes will be offset by induced investment spending. The implication is that the multiplier effect will be enhanced.