Problem 1.

C	Consumption	30000
I	Investment	6000
G	Government Purchases	5000
EX	Export	6000
IM	Imports	7000
TX	Taxes	8000
TR	Transfer Payments	4000

Currently the goods market is in equilibrium, the general price level is $P = 50$, and the marginal propensity to consume is $MPC = 0.75$. In this country, find

(a) real GDP

(b) real disposable income

(c) expenditure multiplier

Hint 1. Relevant formulas are

$$Y = C + I + G + EX - IM,$$

$$Y_d = Y - TX + TR,$$

$$\text{expenditure multiplier} = \frac{1}{1 - MPC}$$

Problem 2.

C	Consumption	30000
I	Investment	6000
G	Government Purchases	5000
EX	Export	6000
IM	Imports	7000
TX	Taxes	8000
TR	Transfer Payments	4000

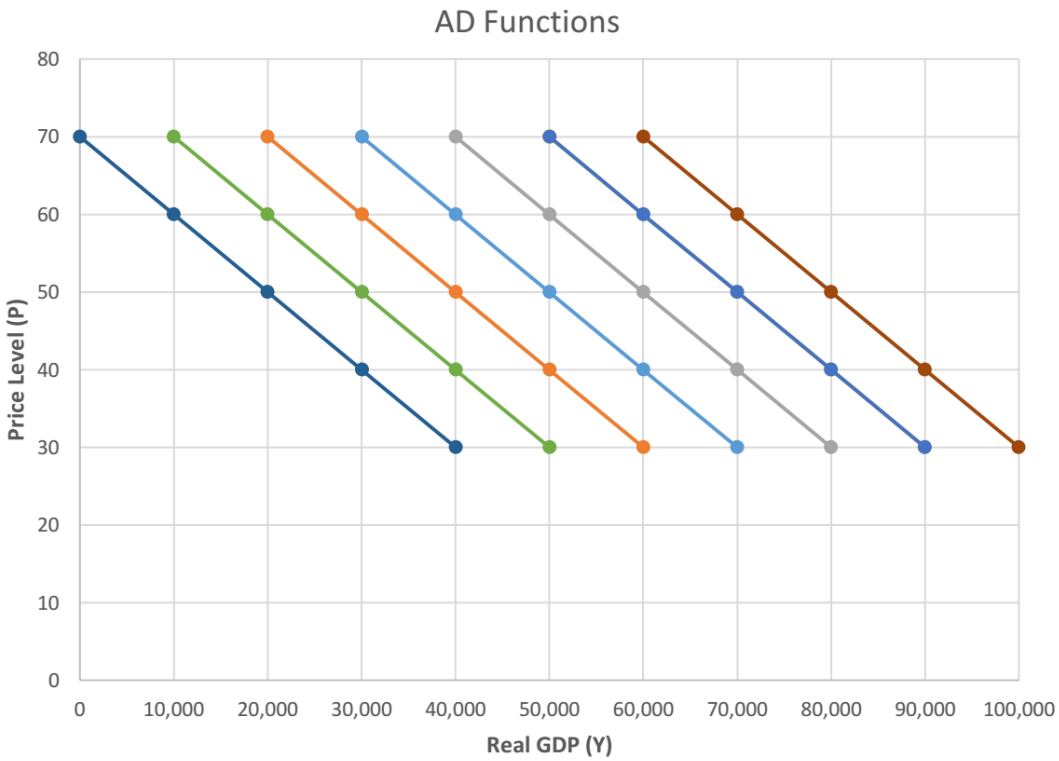
The amount of government budget deficit or surplus equals _____ units.

Hint 2. Relevant formula: $TX - TR - G$. Budget deficit means the government is doling out more than it's taking in; budget surplus means government is taking in more than it's doling out.

Problem 3. Same country. Suppose that the government increases its purchases (G) by 5,000 units and the price level stays at $P = 50$ units. As a result the real GDP will increase by _____ units, of which _____ units will be due to the increase in government purchases and the remaining _____ units due to the resulting increase in household consumption.

Hint 3. Use the expenditure multiplier $\frac{1}{1 - MPC}$. The multiplier effect is the result of consumption.

Problem 4.



Suppose that the government increases its purchases (G) by 5,000 units and at the same time, the price level increases to $P = 60$ units. As a result the new level of real GDP will equal _____ units.

Hint 4. Use the expenditure multiplier with G to shift the curve. Then move to the new price on the new curve.

Problem 5. You may find this question just a little too challenging, but you can do it. Refer to the same data. Let's call the amount of aggregate demand that excludes government purchases ($C + I + EX - IM$) *private spending*. In our case the private spending equals 35,000 units ($C + I + EX - IM = 30,000 + 6,000 + 6,000 - 7,000$). Suppose that the government increases its purchases (G) by 5,000 units and at the same time the price level increases to $P = 70$. As a result, the new private spending will equal _____ units.

Hint 5. This is a series of hints.

- Given P and Y, which AD curve do we start on?
- The change in G causes a shift to which other AD curve?
- When the price level changes, what happens to Y?
- Which components of GDP change when P changes? (There are three effects I went over in excruciating, soul-crushing detail during discussion.) Which component of GDP won't change when P changes?

Problem 6. Refer to the data given in Question 1. Suppose that the government increases its purchases (G) by 10,000 units and at the same time it raises taxes (TX) by 10,000 units to finance the increase in spending. The price level remains at P = 50 units. As a result the level of real GDP will equal _____ units.

Hint 6. How much does the change in G affect Y? How much does the change in TX, through C, change Y? (There's one like this in the 5/25 practice problems.)

Problem 7. Refer to the data given in Question 1. Suppose that the government increases transfer payments (TR) by 10,000 units and at the same time it raises taxes (TX) by 10,000 units to finance the increase in TR. The price level remains at P = 50 units. As a result, the level of real GDP will equal _____ units.

Hint 7. $Y_d = Y - TX + TR$.

Problem 8. *True or False.* What we can say for sure is that, when the real wealth goes up, the aggregate demand function will shift to the right.

Hint 8. Real wealth is nominal wealth divided by price level.

Problem 9. *True or False.* European goods become cheaper and as a result we import more European goods. This event causes the AD function to shift to the right.

Hint 9. Use $Y = C + I + G + EX - IM$.

Problem 10. *True or False.* American goods become cheaper and as a result Europeans buy more American goods. This event causes the AD function to shift to the right.

Hint 10. Use $Y = C + I + G + EX - IM$. Or maybe not.