Problem 1. If a government's expenditures exceed its tax revenues, then the government has

(a) a budget deficit

(b) a budget surplus

(c) a balanced budget

(d) national debt

Answer 1: a. It's spending more money than it's collecting in tax revenues; that's a budget deficit. It does not imply, however, that the country has a positive public debt. If, for example, the government had \$100 million just sitting around but has a \$10 million deficit, then the government still has \$90 million lying around and therefore isn't in debt.

$$\text{Budget Deficit} = \underbrace{G + TR}_{\text{expenditure}} - \underbrace{TX}_{\text{revenue}}.$$

Problem 2. The government increases its spending by an amount equal to the increase in its tax revenue. This is called

(a) printing money

(b) deficit spending

(c) surplus spending

(d) balanced budget spending

Answer 2: d. If the government increases its spending but pays for all of that spending with new taxes, then the budget deficit isn't affected. If, on the other hand, government increased its spending by more than the increase in tax revenue, then it would be **deficit spending**.

Note that the government might borrow in order to engage in deficit spending. Recall that government spending *crowds out* private spending.

Problem 3. The government increases its spending by an amount greater than the increase in its tax revenue. It sells bonds to the public (via the Treasury) to raise the needed money. Subsequently, the Fed buys back some of these bonds through an open market purchase. The Fed's action is called

(a) monetizing the debt

(b) deficit spending

(c) surplus spending

(d) automatic stabilizer

Answer 3: a. Monetizing the debt, then, is a combination of fiscal and monetary policy—the increase in G is expansionary fiscal policy, whereas the Fed increases engages in expansionary monetary policy when it "prints" money. (It either uses funds it already has or creates funds into a spreadsheet instead of actually printing out a bunch of cash.)

Monetizing the debt usually causes inflation to explode into hyperinflation.

Problem 4. The government revenues and expenditures that move against real GDP, making it deviate from potential GDP from an amount less than it would otherwise in their absence, are called

(a) fiscal policy measures

(b) automatic stabilizers

(c) self-correction variables

(d) balanced-budget variables

Answer 4: b. Suppose real GDP falls below its potential level. This corresponds to an increase in unemployment. Unemployment insurance is an automatic stabilizer because with it, peoples' consumption doesn't fall as much as it would have otherwise, and hence Y doesn't fall as much as it would have otherwise.

Progressive income taxes are also automatic stabilizers. If there is a recession and peoples' incomes go down, then they might fall into a lower tax bracket and hence pay a lower tax rate. Therefore their disposable income falls by less than it would have if they had a fixed tax rate, and thus Y falls by less as well.

Note that automatic stabilizers increase the budget deficit. For example, because Y decreases in a recession, tax revenue falls as well. But unemployment insurance is a transfer payment. So the government is receiving less funds via taxes while paying out more funds in unemployment insurance.