N1. Unemployed is labor force less employment = 110 - 90 = 20 so unemployment rate = 20/110 = 18.2%
N3. Current labor force is 60% of 140 = 84 million so current unemployed is 10% of 84 = 8.4 million. Increase
in discouraged workers by 2 million means unemployed falls to 6.4 million and labor force falls to 82 million.
Unemployment rate becomes 6.4/82 = 7.8%.
N5. NRU is frictional plus structural plus institutionally-induced unemployment = 7%.
N7. Current labor force is 60% of 150 = 90 million. Increase encouraged workers by 2 million increases labor
force to 92 million so participation rate becomes 92/150 = 61.3%
N9. Okun's Law says that each percentage point of unemployment change is associated with a 2 percentage
point change in output. Here we have 3 percentage point change in unemployment, so GDP must have changed
by 3x2 = 6 percentage points or 900x0.06 = $54 billion.

Chapter 4: The Keynesian Approach

N1. Better off with a smaller multiplier. A large multiplier would magnify government mistakes and cause other changes in aggregate demand, such as fluctuations in export demand, to destabilize the economy. The only advantage of a large multiplier would be to allow a small change in government spending to have a large impact on the economy. This would be useful if we were not able to increase government spending by large amounts.

N3. The multiplier process must have operated to increase income to induce extra consumer spending. N5a. Desired change in income is $30 billion. To achieve this must increase government spending by 30/4 = $7.5 billion.

N5b. Tax receipts would increase by 20% of 30 = $6 billion, so the budget deficit will increase by 7.5-6 = $1.5 billion.

N7. When income is $350 billion aggregate demand is 326, less than the supply of $350 billion, so inventories will be increasing.

N9. During the first round of the multiplier process income should increase by $50 billion to meet the $50 billion increase in aggregate demand. From the table an increase in income of $50 billion increases consumption by $40 billion and decreases net exports by $2 billion for a net stimulus to aggregate demand of $38 billion. Thus during the second round of the multiplier process income should increase by $38 billion to meet this increase in aggregate demand. So after two rounds income has increased by $88 billion.