

**Formula Sheet: Exam #1**  
**Econ 3133**  
**Dr. Keen**

$$\text{GDP} = C + I + G + (X - \text{IM})$$

National income = Employee compensation + Corporate profits + Proprietors' income + Rental income of persons + Net interest

Net national product = National income + Sales and excise taxes + Business transfers – Net subsidies to government businesses + Statistical discrepancy

Gross national product = Net national product + Depreciation

Gross domestic product = Gross national product – Net factor payments from abroad

Personal income = National income – Contribution for social insurance – Corporate retained earnings + Non-business interest + Transfer payments from government and business

Disposable income = Personal income – Personal income taxes

Government savings = Taxes – Government spending – Transfer payments – Interest on the government debt

Private savings = GDP + Net factor payments from abroad + Transfer payments + Interest on the government debt – Taxes – Consumption

National savings = Private savings + Government savings

Direct foreign investment in the U.S. = – Net exports – Net factor payments from abroad

Investment = Private Savings + Government savings + Direct foreign investment in the U.S.

Adult population = Labor force + Not in the labor force

Labor force = Working + Unemployed

Unemployment rate = (Unemployed/Labor force)×100

Labor force participation rate = (Labor force/Adult population)×100

$$\pi = (P/P_{-1} - 1) \times 100$$

$$(Y - Y^*)/Y^* = -2 \times (u - u^*)$$

$$(Y/AP)_n = (Y/AP) \times (1 + G)^n$$

$$\% \Delta Y = \% \Delta A + (2/3) \times \% \Delta N + (1/3) \times \% \Delta K$$

$$M^S = (k \times Y - h \times R) \times P$$