Chapter 8   Aggregate Expenditure and Equilibrium Output
Principles of Macroeconomics, Case/Fair, 8e

8.1 Aggregate Output and Aggregate Income
Multiple Choice

Aggregate expenditure includes
   A. consumption and investment only.
   B. consumption, investment, government spending, and imports
     only.
   C. consumption, investment, government spending, and net exports
     only.
   D. consumption, investment, government spending, and exports
     only.
Answer : C

Assume that exports and imports are equal. The economy is in
equilibrium when
   A. $Y > C + I + G$.
   B. $Y < C + I + G + (EX - IM)$.
   C. $Y = C + I + G$.
   D. None of the above
Answer : C

The equilibrium interest rate in the economy is determined
   A. in the goods and services market.
   B. by equating the aggregate demand and the aggregate supply
     curves.
   C. in the labor market.
   D. in the money market.
Answer : D

If real GDP is $5 trillion, this implies that
   A. the total spending by consumers and business is $5 trillion.
   B. the total income received is $5 trillion.
   C. the total output produced is $5 trillion.
   D. B and C are correct.
Answer : D

The MPC is
   A. the change in consumption divided by the change in income.
   B. consumption divided by income.
   C. the change in consumption divided by the change in saving.
   D. the change in saving divided by the change in income.
Answer : A

The MPS is
   A. the change in saving divided by the change in income.
   B. 1 + MPC
   C. income divided by saving.
   D. All of the above
Answer : A

Saving equals
   A. Y - C.
   B. Y - planned I.
   C. Y - actual I.
   D. Inventory changes.
Answer : A

If the *MPS* is .20, *MPC*
   A. is 1.20.
   B. is .85.
   C. is .80.
   D. cannot be determined by the given information.
Answer : C

If you earn additional $100 in disposable income one week for mowing your neighbors lawn,
  A. the total of your consumption and saving will increase by more than $100.
  B. the total of your consumption and saving will increase by $100.
  C. the total of your consumption and saving will increase by less than $100.
  D. your consumption will increase by more than $100, even if your *MPS* is 0.1.
Answer : B

If Jack received a $1,000 bonus and his *MPS* is 0.25, his consumption rises by $_____ and his saving rises by $_____.
  A. 150; 500
  B. 850; 150
  C. 750; 250
  D. 1,000; 150
Answer : C

Saving is a _____ variable and savings is a _____ variable.
   A. flow; flow
   B. stock; stock
   C. flow; stock
   D. stock; flow
Answer : C

Uncertainty about the future is likely to
   A. increase current spending.
   B. have no impact on current spending.
   C. decrease current spending.
   D. either increase or decrease current spending.
Answer : C

Higher interest rates are likely to
   A. have no effect on consumer spending or saving.
   B. decrease consumer spending and increase consumer saving.
   C. decrease both consumer spending and consumer saving.
   D. increase consumer spending and decrease consumer saving.
Answer : B

Consumption is
   A. positively related to household income and wealth and
   households' expectations about the future, but negatively
   related to interest rates.
   B. negatively related to household income and wealth, interest
   rates, and households' expectations about the future.
   C. determined only by income.
   D. positively related to household income and wealth, interest
   rates, and households' expectations about the future.
Answer : A

In a closed economy with no government, aggregate expenditure is
   A. consumption plus investment.
   B. saving plus investment.
   C. consumption plus the MPC.
   D. MPC + MPS.
Answer : A

If Emily's income is reduced to zero after she loses her job, her consumption will be _____ and her saving will be _____.
   A. less than zero; less than zero
   B. greater than zero; greater than zero
   C. less than zero; greater than zero
   D. greater than zero; less than zero
Answer: D

If Sara's total consumption is $1,500 a month, the fraction of her income that she consumes is 60%, and her income is $2,000, the amount of money she consumes when her income is zero is
   A. $300.
   B. $500.
   C. $200.
   D. $1,200.
Answer: A

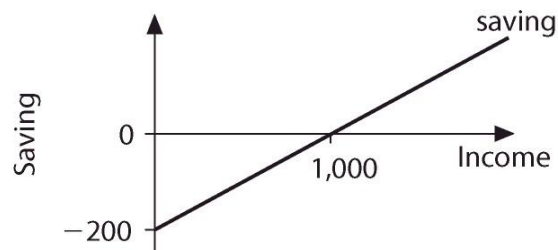*Refer to the information provided in Figure 8.1 below to answer the questions that follow.*

Figure 8.1

Refer to Figure 8.1. The *MPS* for this household is _____ and the *MPC* is _____.
   A. 0.4; 0.6
   B. 0.5; 0.5
   C. 0.2; 0.8
   D. 0.3; 0.7
Answer: C

Refer to Figure 8.1. The equation for this household's saving function is
    A. S = -200 + .8Y.
    B. S = -300 + 0.3Y.
    C. S = -200 + .2Y.
    D. S = -1,000 + 0.3Y.
Answer: C

Refer to Figure 8.1. At income level $1,200, this household's saving is _____ than (to) zero and this household's consumption is _____ than (to) zero.
    A. less; greater
    B. equal; equals
    C. greater; less
    D. greater; greater
Answer: D

Refer to Figure 8.1. This household's consumption function is
    A. C = 300 + 0.7Y.
    B. C = 200 + 0.8Y.
    C. C = 200 + 0.2Y.
    D. C = 1,000 + 0.8Y.
Answer: B

Refer to Figure 8.1. This household saves -$50 at an income level of
    A. $750.
    B. $833.3.
    C. $1000.
    D. $890.3.
Answer: A

Refer to Figure 8.1. This household consumes $1,300 at an income level of
    A. $1,375.
    B. $1,873.5.
    C. $1,428.6.
    D. $1000.
Answer: A

Refer to Figure 8.1. An increase in the amount of consumption this
household makes when this household's income is zero
   A. makes the consumption function steeper.
   B. makes the saving function flatter.
   C. shifts the consumption function downward.
   D. shifts the saving function downward.
Answer: D

Refer to Figure 8.1. An increase in the *MPC*
   A. makes the consumption function flatter.
   B. makes the saving function flatter.
   C. shifts the consumption function upward.
   D. shifts the saving function downward.
Answer: B

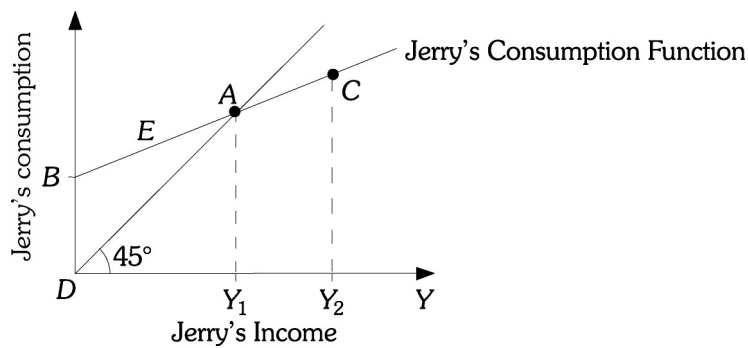*Refer to the information provided in Figure 8.2 below to answer the questions
that follow.*

Figure 8.2

Refer to Figure 8.2. The line segment *BD* represents Jerry's
   A. consumption when income equals Y_1.
   B. saving when income equals zero.
   C. saving when income is Y_1.
   D. consumption when income equals zero.
Answer: D

Refer to Figure 8.2. Jerry's consumption equals his income at Point
  A. B.
  B. A.
  C. D.
  D. C.
Answer: B

Refer to Figure 8.2. Jerry's saving equals zero at income level
  A. zero.
  B. Y_1.
  C. Y_2.
  D. $Y_2 - Y_1$.
Answer: B

Refer to Figure 8.2. Along the line segment *AC*, Jerry's
  A. consumption equals his income.
  B. consumption is greater than his income.
  C. saving is zero.
  D. saving is positive.
Answer: D

Refer to Figure 8.2. Along the segment *AB*, Jerry's
  A. consumption is less than his income.
  B. saving is positive.
  C. consumption equals his income.
  D. saving is negative.
Answer: D

Refer to Figure 8.2. Saving occurs along the line segment
  A. BC.
  B. DC.
  C. AC.
  D. BA.
Answer: C

Refer to Figure 8.2. An increase in Jerry's income is represented by
    A. an upward shift in Jerry's consumption function.
    B. an increase in the slope of Jerry's consumption function.
    C. a movement from Point B to A.
    D. None of the above
Answer : C

Refer to Figure 8.2. Suppose Jerry's MPC increases. At income Y_1, Jerry's
    A. consumption will be greater than his income.
    B. consumption will be less than his income.
    C. saving will be zero.
    D. All of the above
Answer : A

The fraction of a change in income that is consumed or spent is called
    A. the marginal propensity of income.
    B. the marginal propensity to save.
    C. the marginal propensity to consume.
    D. average consumption.
Answer : C

If you save $20 when you experience a $200 rise in your income,
    A. your MPS is 0.3.
    B. your MPC is 0.9.
    C. your MPC is 0.85.
    D. your MPS is 0.8.
Answer : B

If consumption is $25,000 when income is $26,000, and consumption increases to $26,100 when income increases to $28,000, the MPC is
    A. .59.
    B. .65.
    C. .55.
    D. .45.
Answer : C

If consumption is $5,000 when income is $5,000, and consumption increases to $9,000 when income increases to $10,000, the *MPS* is
  A. .29.
  B. .8.
  C. .2.
  D. .33.
Answer : C

Suppose consumption is $4,000 when income is $6,000 and the *MPC* equals 0.9. When income increases to $7,000, consumption is
  A. $5,700.
  B. $5,600.
  C. $4,900.
  D. $4,800.
Answer : C

Suppose saving is $2,000 when income is $10,000 and the *MPC* equals 0.8. When income increases to $15,000, saving is
  A. $4,000.
  B. $3,000.
  C. $2,400.
  D. $5,000.
Answer : B

Suppose consumption is $10,000 when income is $9,000 and the *MPS* equals 0.2. When income increases to $9,500, consumption is
  A. $9,600.
  B. $10,450.
  C. $10,400.
  D. $10,040.
Answer : C

If the *MPS* is .35, the *MPC* is
  A. .45.
  B. .65.
  C. 1.45.
  D. 2.55.
Answer : B

If the *MPS* is .15, the *MPC* is
   A. .45.
   B. -.85.
   C. .85.
   D. 1.85.
Answer: C

If the consumption function is of the form *C* = 80 + 0.5*Y*, the *MPS*
equals
   A. -0.5.
   B. 0.4.
   C. 0.5.
   D. -0.4.
Answer: C

If the saving function is of the form *S* = -20 + 0.3*Y*, consumption at
an income level of 120 is
   A. 20.
   B. 90.
   C. 104.
   D. 56.
Answer: C

If Heather's consumption function is of the form *C* = 100 + 0.75*Y*,
her saving equals zero at an income level of
   A. 350.
   B. 400.
   C. 500.
   D. Cannot be determined from the given information.
Answer: B

If Rick's saving function is of the form *S* = -150 + 0.1*Y*, his
consumption equals his income at an income level of
   A. 500.
   B. 50.
   C. 5,000.
   D. 1,500.
Answer: D

Refer to the information provided in Table 8.1 below to answer the questions that follow.

Table 8.1

Aggregate Income ($ billion)	Aggregate Consumption ($billion)
0	80
200	240
400	400
600	560
800	720

Refer to Table 8.1. The equation for the aggregate consumption function is
   A. C = 80 + .85Y.
   B. C = 80 + .8Y.
   C. C = 80 + .75Y.
   D. C = -80 + .45Y.
Answer: B

Refer to Table 8.1. Society's *MPC* is
   A. 0.8.
   B. 0.2.
   C. 0.65.
   D. 0.75.
Answer: A

Refer to Table 8.1. Society's *MPS* is
   A. 0.25.
   B. 0.2.
   C. 0.35.
   D. 0.8.
Answer: B

Refer to Table 8.1. At an aggregate income level of $300, aggregate saving would be
   A. -$5.
   B. $50.
   C. -$20.
   D. $60.
Answer: C

Refer to Table 8.1. Assuming society's *MPC* is constant at an aggregate of income of $500, aggregate consumption would be
_____.
   A. $240.
   B. $455.
   C. $480.
   D. $350.
Answer: C

Refer to the information provided in Table 8.2 below to answer the questions that follow.

Table 8.2

Aggregate Income ($ billions)	Aggregate Saving ($ billion)
0	
100	–130
300	–70
600	–10
1,000	50

Refer to Table 8.2. The equation for the aggregate saving function is
   A. S = -50 + .2Y.
   B. S = -150 + .2Y.
   C. S = -150 + .1Y.
   D. S = -100 + .9Y.
Answer: B

Refer to Table 8.2. Society's MPC is
   A. 0.1.
   B. 0.2.
   C. 0.8.
   D. 0.9.
Answer: C

Refer to Table 8.2. Society's MPS is
   A. 0.2.
   B. 0.3.
   C. 0.1.
   D. 0.9.
Answer: A

Refer to Table 8.2. Assuming society's MPC is constant, at an aggregate income level of $1,500, aggregate consumption would be
A. $1,200.
B. $1,350.
C. $1,450.
D. $1,500.
Answer: B

Refer to Table 8.2. Assuming society's MPC is constant, at an aggregate income of $2,000 aggregate saving would be _____.
A. $50
B. $250
C. -$60
D. -$150
Answer: B

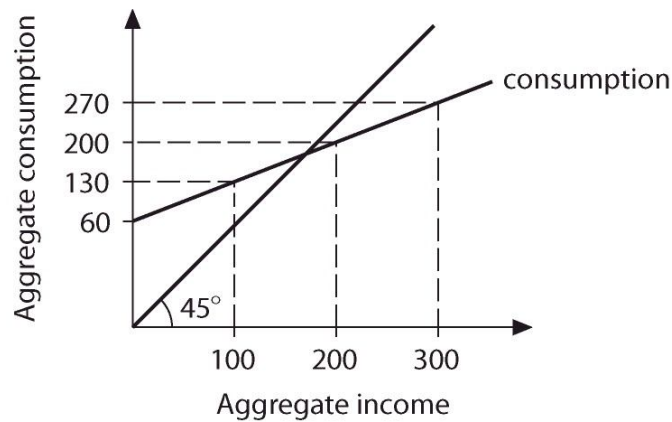Refer to the information provided in Figure 8.3 below to answer the questions that follow.

Figure 8.3

Refer to Figure 8.3. The equation for the aggregate consumption function is
A. C = 140 + .5Y.
B. C = 60 + .7Y.
C. C = 80 + .6Y.
D. C = 60 + .4Y.
Answer: B

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Refer to Figure 8.3. The equation for the aggregate saving function is
   A. S = -60 + .3Y.
   B. S = -200 + .6Y.
   C. S = -140 + .5Y.
   D. S = -80 + .4Y
Answer: A

Refer to Figure 8.3. In this economy, aggregate saving will be zero if income is
   A. $100 billion.
   B. $200 billion.
   C. $300 billion.
   D. $400 billion.
Answer: B

Refer to Figure 8.3. For this society, aggregate saving is positive if aggregate income is
   A. above zero.
   B. between $0 and $150 billion.
   C. equal to $200 billion.
   D. above $200 billion.
Answer: D

Refer to Figure 8.3. If aggregate income is $1,000 billion, then in this society aggregate saving is _____ billion.
   A. $300
   B. $320
   C. $240
   D. $550
Answer: C

Refer to Figure 8.3. Which of the following statements is FALSE?
   A. Aggregate saving is negative for all income levels below $400 billion.
   B. For all aggregate income levels above $200 billion, aggregate consumption is less than aggregate income.
   C. If consumption is the only expenditure, this economy would be in equilibrium at an aggregate income level of $200 billion.
   D. Saving is negative at all income levels below $200 billion.
Answer: A

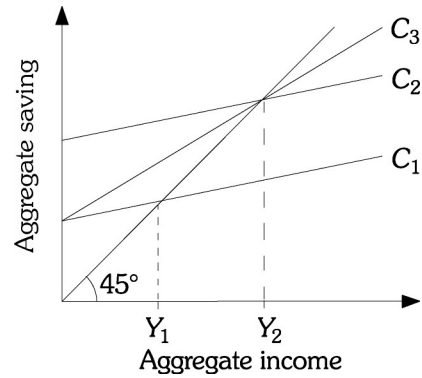Refer to the information provided in Figure 8.4 below to answer the questions that follow.

Figure 8.4

Refer to Figure 8.4. The aggregate consumption functions C_1 and C_2
   A. have the same MPC.
   B. imply the same MPS.
   C. differ in terms of the amount of consumption when income is zero.
   D. All of the above
Answer : D

Refer to Figure 8.4. Which consumption function has the largest MPC?
   A. C_1.
   B. C_2.
   C. C_3.
   D. Cannot be determined from the figure.
Answer : C

Refer to Figure 8.4. Suppose the consumption function for C_1 = 10 + 0.8Y, the consumption function that best fits C_2 is
   A. C_2 = 20 + 0.8Y.
   B. C_2 = 10 + 0.4Y.
   C. C_2 = 40 + 0.5Y.
   D. C_2 = 20 + 0.1Y.
Answer : A

Refer to Figure 8.4. Suppose the consumption function for C_1 = 20 + 0.5Y, the consumption function that best fits C_3 is
   A. C_3 = 20 + 0.8Y.
   B. C_3 = 20 + 0.4Y.
   C. C_3 = 40 + 0.5Y.
   D. C_3 = 40 + 0.4Y.
Answer : A

Refer to Figure 8.4. If income is Y_1, aggregate consumption is the greatest when the aggregate consumption function is
   A. C_3.
   B. C_2.
   C. C_1.
   D. Cannot be determined from the figure.
Answer : B

Refer to Figure 8.4. If income is Y_2
   A. the society's saving is negative along C_1, C_2, and C_3.
   B. the society's consumption is equal along C_2 and C_3.
   C. the society's saving is positive along C_2 and C_3.
   D. the society's savings is negative along C_1.
Answer : B

If the consumption function is below the 45-degree line,
   A. consumption is less than income and saving is positive.
   B. consumption is less than income and saving is negative.
   C. consumption exceeds income and saving is positive.
   D. consumption exceeds income and saving is negative.
Answer : A

Refer to the information provided in Figure 8.5 below to answer the questions that follow.
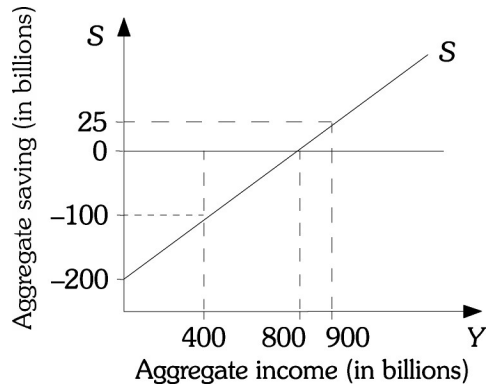

Figure 8.5

Refer to Figure 8.5. The MPS for this saving function is
    A. 5.
    B. 0.25.
    C. 0.5.
    D. 4.
Answer : B

Refer to Figure 8.5. If aggregate income is $400 billion, aggregate saving is _____ billion.
    A. -$300
    B. -$100
    C. $0
    D. $500
Answer : B

Refer to Figure 8.5. If aggregate income is $900 billion, aggregate consumption
    A. is $25 billion.
    B. is $800 billion.
    C. is $875 billion.
    D. cannot be determined from this information.
Answer : C

Refer to Figure 8.5. If aggregate consumption is the only
expenditure in this society, the equilibrium level of income
   A. is $400 billion.
   B. is $800 billion.
   C. is $900 billion.
   D. cannot be determined from this information.
Answer: B

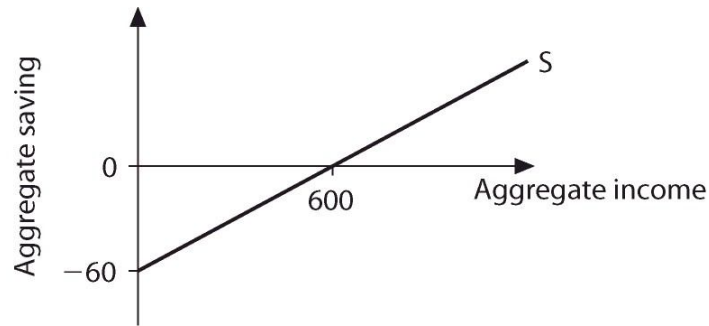Refer to the information provided in Figure 8.6 below to answer the questions
that follow.

Figure 8.6

Refer to Figure 8.6. The MPS for this saving function is
   A. .4.
   B. .2.
   C. .25.
   D. .1.
Answer: D

Refer to Figure 8.6. If aggregate income is $800, aggregate saving
is _____.
   A. -$100
   B. -$20
   C. $40
   D. $20
Answer: D

Refer to Figure 8.6. If aggregate income is $1,000, aggregate
consumption is
   A. $850.
   B. $960.
   C. $910.
   D. $920.
Answer: B

Refer to Figure 8.6. If aggregate consumption is the only
expenditure in this society, the equilibrium level of income is
   A. $120.
   B. $600.
   C. $900.
   D. Cannot be determined from the figure.
Answer: B

The Tiny Tots Toy Company manufactures only sleds. In 1999 Tiny Tots
manufactured 10,000 sleds, but sold only 8,000 sleds. In 1999 Tiny
Tots' change in inventory was
   A. -2,000 sleds.
   B. 1,000 sleds.
   C. 2,000 sleds.
   D. 3,000 sleds.
Answer: C

The Jackson Tool Company manufactures only tools. In 1998 Jackson
Tools manufactured 20,000 tools, but sold 21,000 tools. In 1998
Jackson Tools' change in inventory was
   A. -2,000 tools.
   B. 1,000 tools.
   C. -1,000 tools.
   D. 3,000 tools.
Answer: C

Which of the following is NOT considered investment?
   A. The acquisition of capital goods
   B. The purchase of government bonds
   C. The increase in planned inventories
   D. The construction of a new factory
Answer: B

Which of the following is an investment?
   A. The purchase of a new printing press by a business.
   B. The purchase of a corporate bond by a household.
   C. The purchase of a share of stock by a household.
   D. All of the above
Answer: A

Over which component of investment do firms have the least amount of control?
    A. Purchases of new equipment.
    B. Construction of new factories.
    C. Changes in inventories.
    D. Building new machines.
Answer : C

Assume that in Montega, planned investment is $50 billion but actual investment is $40 billion. Unplanned inventory investment is
    A. -$10 billion.
    B. $80 billion.
    C. -$20 billion.
    D. $20 billion.
Answer : A

Assume that in Smirnoff, planned investment is $50 billion, but actual investment is $55 billion. Unplanned inventory investment is
    A. -$5 billion.
    B. -$15 billion.
    C. $5 billion.
    D. -$40 billion.
Answer : C

If unplanned business investment is $40 million and planned investment is $30 million, then actual investment is
    A. $80 million.
    B. $70 million.
    C. $10 million.
    D. -$10 million.
Answer : B

In 1999 Outland's planned investment was $60 billion and its actual investment was $80 billion. In 1999 Outland's unplanned inventory change was
    A. -$20 billion.
    B. $1.4 billion.
    C. $20 billion.
    D. $30 billion.
Answer : C

If planned investment exceeds actual investment,
    A. there will be an accumulation of inventories.
    B. there will be no change in inventories.
    C. there will be a decline in inventories.
    D. None of the above
Answer: C

If Inventory investment is higher than firms planned,
    A. actual and planned investment are equal.
    B. actual investment is less than planned investment.
    C. actual investment is greater than planned investment.
    D. actual investment must be negative.
Answer: C

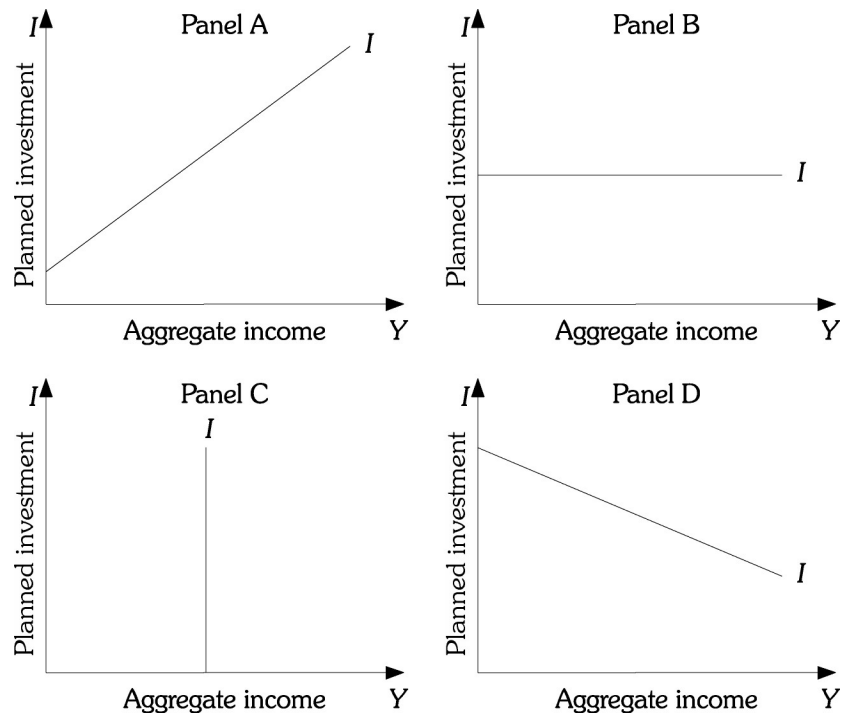Refer to the information provided in Figure 8.7 below to answer the questions that follow.

Figure 8.7

Refer to Figure 8.7. In Azora, planned investment does not vary with income. Azora's planned investment function is represented by
   A. Panel A.
   B. Panel B.
   C. Panel C.
   D. Panel D.
Answer: B

Refer to Figure 8.7. In Farley, planned investment varies inversely with income. Farley's planned investment function is represented by
   A. Panel A.
   B. Panel B.
   C. Panel C.
   D. Panel D.
Answer: D

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Without the government or the foreign sector in the income-
expenditure model, planned aggregate expenditure equals
    A. consumption plus actual investment.
    B. consumption plus inventory adjustment.
    C. consumption minus planned investment.
    D. consumption plus planned investment.
Answer : D
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True/False

1) As interest rates fall, spending decreases.

Answer: True   ● False

Diff: 1

Skill: C

2) Uncertainty about the future is likely to increase current spending.

Answer: True   ● False

Diff: 1

Skill: C

3) The marginal propensity to consume is the change in consumption per change in income.

Answer: ● True   False

Diff: 1

Skill: D

4) If the marginal propensity to consume is .8, the marginal propensity to save is 8.

Answer: True   ● False

Diff: 1

Skill: F

5) If the MPS is .1, then the multiplier is 10.

Answer: ● True   False

Diff: 1

Skill: A

6) If actual investment is greater than planned investment, unplanned inventories decline.

Answer: True   ● False

Diff: 2

Skill: F

7) Assuming there is no government or foreign sector, the economy will be in equilibrium if, and only if, planned investment equals actual investment.

Answer: ● True   False

Diff: 2

Skill: F

8) Firms react to an unplanned inventory investment by increasing output.

Answer: True   ● False

Diff: 2

Skill: C

9) Firms react to negative inventory investment by increasing output.

Answer: ● True   False

Diff: 2

Skill: C

10) If planned saving exceeds planned investment, injections are greater than leakages.
Answer: True ● False
Diff: 2
Skill: F

11) If planned investment increases, equilibrium will be restored only when saving has increased by exactly the amount of the initial increase in planned investment, assuming there is no government or foreign sector.
Answer: ● True   False
Diff: 2
Skill: C

8.2 Equilibrium Aggregate Output (Income)
Multiple Choice
1) In macroeconomics, equilibrium is defined as that point at which
A. saving equals consumption.
B. planned aggregate expenditure equals aggregate output.
C. planned aggregate expenditure equals consumption.
D. aggregate output equals consumption minus investment.
Answer: B

The economy can be in equilibrium if, and only if,
A. planned investment is zero.
B. actual investment is zero.
C. planned investment is greater than actual investment.
D. planned investment equals actual investment.
Answer: D

If aggregate output is greater than planned spending, then
A. unplanned inventory investment is zero.
B. unplanned inventory investment is negative.
C. unplanned inventory investment is positive.
D. actual investment equals planned investment.
Answer: C

If unplanned inventory investment is positive, then
A. planned investment must be zero.
B. planned aggregate spending must be greater than aggregate .
  output.
C. planned aggregate spending must be less than aggregate output.
D. planned aggregate spending must equal aggregate output.
Answer: C

If aggregate output equals planned aggregate expenditure, then
A. unplanned inventory investment is zero.
B. unplanned inventory adjustment is negative.
C. unplanned inventory adjustment is positive.
D. actual investment is greater than planned investment.
Answer: A

Refer to the information provided in Table 8.3 below to answer the questions that follow.

Table 8.3

All Figures in Billions of Dollars

Aggregate Output	Aggregate Consumption	Planned Investment
200	300	100
400	450	100
600	600	100
800	750	100
1,000	900	100

Refer to Table 8.3. At an aggregate output level of $400 billion, planned expenditure equals
A. $550 billion.
B. $450 billion.
C. $500 billion.
D. $850 billion.
Answer: A

Refer to Table 8.3. At an aggregate output level of $800 billion, aggregate saving
A. equals -$50 billion.
B. equals $0.
C. equals $50 billion.
D. cannot be determined from this information.
Answer: A

Refer to Table 8.3. At an aggregate output level of $200 billion, the unplanned inventory change is
  A. -$150 billion.
  B. -$200 billion.
  C. -$50 billion.
  D. $100 billion.
Answer: B

Refer to Table 8.3. At an aggregate output level of $600 billion, the unplanned inventory change is
  A. -$100 billion.
  B. -$50 billion.
  c. $0.
  D. $50 billion.
Answer: A

Refer to Table 8.3. If aggregate output equals _____, there will be a $100 billion unplanned decrease in inventories.
  A. $200 billion
  B. $400 billion
  C. $600 billion
  D. $800 billion
Answer: C

Refer to Table 8.3. The equilibrium level of aggregate output equals
  A. $400 billion.
  B. $600 billion.
  C. $800 billion.
  D. $1,000 billion.
Answer: D

Refer to Table 8.3. Which of the following statements is FALSE?
  A. At output levels greater than $800 billion, there is a positive unplanned inventory change.
  B. If aggregate output equals $1000 billion, then aggregate saving equals $0.
  C. The MPC for this economy is .75.
  D. At an output level of $400 billion, there is a $150 billion unplanned inventory decrease.
Answer: A

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Refer to Table 8.3. Planned saving equals planned investment at an aggregate output level
   A. of $1000 billion.
   B. of $600 billion.
   C. of $800 billion.
   D. that cannot be determined from this information.
Answer: A

Refer to Table 8.3. Planned investment equals actual investment at
   A. all income levels.
   B. all income levels above $600 billion.
   C. all income levels below $600 billion.
   D. $1000 billion.
Answer: D

Refer to the information provided in Table 8.4 below to answer the questions that follow.

Table 8.4

Aggregate Output ($ million)	Aggregate Consumption ($ million)	Planned Investment ($ million)
2,000	1,200	1,350
2,500	1,500	1,050
3,000	1,800	1,400
3,500	2,100	1,400
4,000	2,400	1,400

Refer to Table 8.4. At an aggregate output level of $2,000 million, planned expenditure equals
   A. $2,000.
   B. $2,500.
   C. $2,300.
   D. $2,400.
Answer: B

Refer to Table 8.4. The *MPC* in this economy is
   A. 0.5.
   B. 0.6.
   C. 0.7.
   D. 0.8.
Answer: B

Refer to Table 8.4. At an aggregate output level of $3,000 million, the unplanned inventory change is
  A. $1,000 million.
  B. 0.
  C. $200 million.
  D. -$200 million.
Answer: D

Refer to Table 8.4. At an aggregate output level of $4,000 million, the unplanned inventory change is
  A. 0.
  B. $200 million.
  C. -$200 million.
  D. -$20 million.
Answer: B

Refer to Table 8.4. If aggregate output equals _____, there will be a $50 million unplanned decrease in inventories.
  A. $2,500 million
  B. $2,000 million
  C. $3,500 million
  D. $4,000 million
Answer: A

Refer to Table 8.4. The equilibrium level of aggregate output equals
  A. $2,000 million.
  B. $2,500 million.
  C. $3,000 million.
  D. $3,500 million.
Answer: D

Refer to Table 8.4. Which of the following statements is FALSE?
  A. At an output level $3,000, there is a $200 million unplanned inventory decrease.
  B. If aggregate output equals $3,000 million, then aggregate saving . equals $1000 million.
  C. The *MPC* for this economy is .6.
  D. At an output level of $2,000 million, there is a $500 million unplanned inventory decrease.
Answer: B

Refer to Table 8.4. Planned saving equals planned investment at an aggregate output level of
  A. $3,500 million.
  B. $4,000 million.
  C. $3,000 million.
  D. $2,500 million.
Answer: A

Refer to Table 8.4. Planned investment equals actual investment at
  A. all income levels.
  B. all income levels above $3,500 million.
  C. all income levels below $3,500 million
  D. an income level of $3,500 million.
Answer: D

If $C = 100 + .8Y$ and $I = 50$, then the equilibrium level of income is
  A. 600.
  B. 375.
  C. 187.5.
  D. 750.
Answer: D

If $C = 500 + .9Y$ and $I = 400$, then the equilibrium level of income is
  A. 900.
  B. 1,800.
  C. 1,000.
  D. 9,000.
Answer: D

If $S = -200 + 0.2Y$ and $I = 100$, then the equilibrium level of income is
  A. 3,000.
  B. 1,500.
  C. 4,000.
  D. 1,200.
Answer: B

If C = 1,500 + .75Y and I = 500, then planned saving equals planned investment at aggregate output level of
   A. 8,000.
   B. 20,000.
   C. 2,666.67.
   D. 10,000.
Answer: A

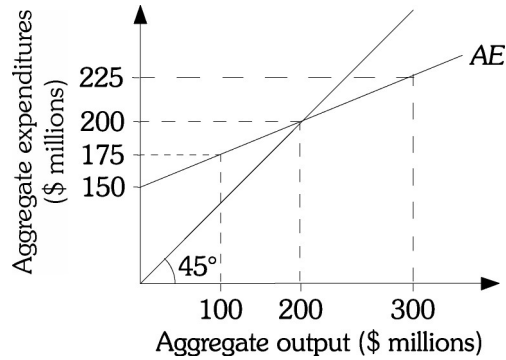*Refer to the information provided in Figure 8.8 below to answer the questions that follow.*

Figure 8.8

Refer to Figure 8.8. What is the equation for the aggregate expenditure function (AE)?
   A. AE = 200 + .5Y.
   B. AE = 150 + .25Y.
   C. AE = 200 + .8Y.
   D. AE = 350 + .6Y.
Answer: B

Refer to Figure 8.8. Equilibrium output equals
   A. 100.
   B. 200.
   C. 150.
   D. 300.
Answer: B

Refer to Figure 8.8. At aggregate output level $300 million, there is a
   A. $75 million increase in unplanned inventories.
   B. $75 million decrease in unplanned inventories.
   C. $100 million decrease in inventories.
   D. $100 million increase in inventories.
Answer: A

Refer to Figure 8.8. At aggregate output level $100 million, there is a
   A. $75 million increase in unplanned inventories.
   B. $75 million decrease in unplanned inventories.
   C. $100 million decrease in inventories.
   D. $100 million increase in inventories.
Answer: B

Refer to Figure 8.8. How will equilibrium aggregate expenditure and equilibrium aggregate output change as a result of a decrease in investment by $20 million?
   A. AE line shifts down, increasing equilibrium output and equilibrium expenditure.
   B. AE line shifts up, increasing equilibrium output and equilibrium expenditure.
   C. AE line shifts down, decreasing equilibrium output and . equilibrium expenditure.
   D. AE line shifts down, increasing equilibrium output and decreasing equilibrium expenditure.
Answer: C

33) Refer to Figure 8.8. Leakages are greater than injections at an aggregate output level of
   A. Cannot be determined from the figure.
   B. $100 million.
   C. $200 million.
   D. $300 million.
Answer: D

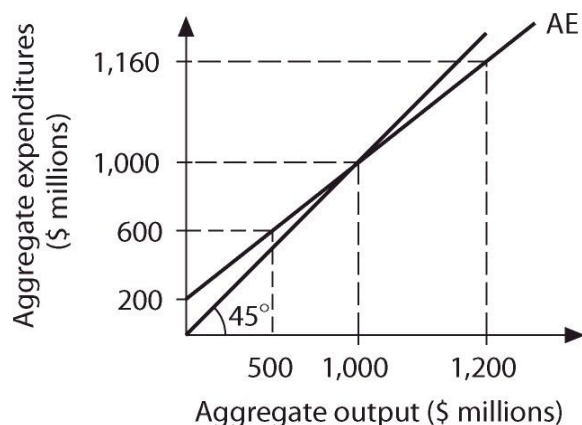*Refer to the information provided in Figure 8.9 below to answer the questions that follow.*

Figure 8.9

Refer to Figure 8.9. What is the equation for the aggregate expenditure function (*AE*)?
   A. $AE = 600 + .1Y$.
   B. $AE = 200 + .8Y$.
   C. $AE = 550 + .8Y$.
   D. $AE = 100 + .9Y$.
Answer: B

Refer to Figure 8.9. At an aggregate output level of $500 million, there is a
   A. $100 million unplanned increase in inventories.
   B. $175 million unplanned decrease in inventories.
   C. $0 change in unplanned inventories.
   D. $100 million unplanned decrease in inventories.
Answer: D

Refer to Figure 8.9. At aggregate output levels above $1,000 million, there are
   A. unplanned increases in inventories and output increases.
   B. unplanned decreases in inventories and output increases.
   C. unplanned decreases in inventories and output decreases.
   D. unplanned increases in inventories and output decreases.
Answer: D

Refer to Figure 8.9. At aggregate output levels below $1,000 million, there are
   A. unplanned decreases in inventories and output increases.
   B. unplanned increases in inventories and output increases.
   C. unplanned increases in inventories and output decreases.
   D. unplanned decreases in inventories and output decreases.
Answer : A

Refer to Figure 8.9. At aggregate output levels above $1,000 million,
   A. leakages equal injections.
   B. leakages are more than injections.
   C. leakages are zero, but injections are positive.
   D. leakages are less than injections.
Answer : B

Refer to Figure 8.9. At aggregate output levels below $1,000 million,
   A. leakages equal injections.
   B. leakages are greater than injections.
   C. leakages are less than injections.
   D. leakages are positive, but injections are negative.
Answer : C

Using the saving/investment approach to equilibrium, the equilibrium condition can be written as
   A. C + I = C + S.
   B. C = S + I.
   C. C - S = I.
   D. C + S = I.
Answer : A

Firms react to unplanned inventory reductions by
   A. reducing output.
   B. increasing output.
   C. reducing planned investment.
   D. increasing consumption.
Answer : B

```
Firms react to unplanned increases in inventories by
   A. reducing output.
   B. increasing output.
   C. increasing planned investment.
   D. increasing consumption.
Answer : A

Aggregate output will increase if there is a(n)
   A. increase in saving.
   B. unplanned rise in inventories.
   C. unplanned fall in inventories.
   D. decrease in consumption.
Answer : C

A decrease in planned investment causes
   A. output to increase.
   B. output to decrease, but by a smaller amount than the decrease
    in investment.
   C. output to decrease, but by a larger amount than the decrease
    in investment.
   D. output to decrease by an amount equal to the decrease in .
    investment.
Answer : C
```

True/False

1) When aggregate expenditure is greater than aggregate output, there will be an unplanned build up of inventories.

Answer: True   ● False

Diff: 2

Skill: C

2) When there is an unplanned draw down of inventories, firms will increase production.

Answer: ● True   False

Diff: 2

Skill: C

3) Actual investment equals planned investment plus unplanned changes in inventories.

Answer: ● True   False

Diff: 2

Skill: D

4) When the economy is in equilibrium, savings equals planned investment.

Answer: ● True   False

Diff: 2

Skill: C

5) If aggregate expenditure decreases, then equilibrium output increases.
    Answer: True   ● False
    Diff: 2
    Skill: C

```
8.3 The Multiplier
Multiple Choice
```

The ratio of the change in the equilibrium level of output to a change in some autonomous variable is the
    A. elasticity coefficient.
    B. multiplier.
    C. automatic stabilizer.
    D. marginal propensity of the autonomous variable.
Answer: B

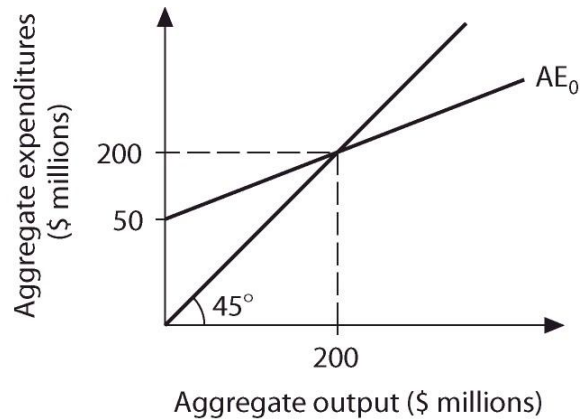Refer to the information provided in Figure 8.10 below to answer the questions that follow.

Figure 8.10

Refer to Figure 8.10. The equation for the aggregate expenditure function AE_0 is
    A. $AE_0 = 50 + .6Y$.
    B. $AE_0 = 80 + .6Y$.
    C. $AE_0 = 50 + .75Y$.
    D. $AE_0 = 50 + .4Y$.
Answer: C

Refer to Figure 8.10. The value of the multiplier is
    A. 2.
    B. 2.5.
    C. 3.
    D. 4.
Answer: D

Refer to Figure 8.10. A $10 million increase in investment changes equilibrium output to
    A. $240 million.
    B. $90 million.
    C. $225 million.
    D. $175 million.
Answer: A

Refer to Figure 8.10. A $20 million decrease in autonomous
consumption
   A. changes equilibrium expenditure to $120 million.
   B. changes equilibrium output to $120 million.
   C. does not affect the *MPC*.
   D. All of the above
Answer: D

Refer to Figure 8.10. If *MPC* increases to 0.8, equilibrium aggregate
output
   A. increases to $250 million.
   B. remains at $200 million.
   C. increases to $400 million.
   D. cannot be determined from the given information.
Answer: A

Assuming no government or foreign sector, if the *MPC* is .8, the
multiplier is
   A. .2.
   B. .8.
   C. 1.25.
   D. 5.
Answer: D

Assuming no government or foreign sector, the formula for the multiplier is
   A. 1/MPC.
   B. 1/MPS.
   C. 1/(1 + MPC).
   D. 1 - MPC.
Answer : B

Assuming there is no government or foreign sector, the formula for the multiplier is
   A. 1/(1 - MPC).
   B. 1/MPC.
   C. 1/(1 + MPC).
   D. 1 - MPC.
Answer : A

Assuming there is no government or foreign sector, if the multiplier is 4, the *MPC* is
   A. 0.75.
   B. 0.8.
   C. 0.6.
   D. 2.5.
Answer : A

Assume there is no government or foreign sector. If the *MPS* is .2, the multiplier is
   A. 2.
   B. 5.
   C. 9.
   D. 4.
Answer : B

Assume there is no government or foreign sector. If the multiplier is 5, a $10 billion increase in planned investment will cause aggregate output to increase by
   A. $2.5 billion.
   B. $10 billion.
   C. $40 billion.
   D. $50 billion.
Answer : D

Assume there is no government or foreign sector. If the *MPS* is .2, a $20 billion decrease in planned investment will cause aggregate output to decrease by
   A. $200 billion.
   B. $20 billion.
   C. $100 billion.
   D. $4 billion.
Answer : C

Assume there is no government or foreign sector. If the multiplier is 5, a $20 billion increase in investment will cause aggregate output to increase by
   A. $5 billion.
   B. $10 billion.
   C. $50 billion.
   D. $100 billion.
Answer : D

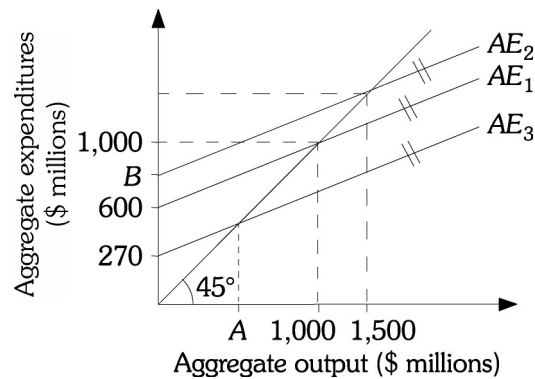Refer to the information provided in Figure 8.11 below to answer the questions that follow.

Figure 8.11

Refer to Figure 8.11. What is the equation for aggregate expenditure AE_1?
   A. $AE_1 = 1,000 + .5Y$.
   B. $AE_1 = 600 + .4Y$.
   C. $AE_1 = 1,000 + .6Y$.
   D. $AE_1 = 400 + .4Y$.
Answer : B

Refer to Figure 8.11. Suppose AE_1, AE_2 and AE_3 are parallel. What is the value of Point B?
   A. $750 million
   B. $800 million
   C. $900 million
   D. Cannot be determined from the given information.
Answer: C

Refer to Figure 8.11. Suppose AE_1, AE_2 and AE_3 are parallel. What is the value of Point A?
   A. $450 million
   B. $540 million
   C. $510 million
   D. Cannot be determined from the given information.
Answer: A

Refer to Figure 8.11. Suppose the economy's aggregate expenditure line is AE_1. A $10 million increase in planned investment causes aggregate equilibrium output to increase to
   A. $1,016.7 million.
   B. $1,010 million.
   C. $1,125.5 million.
   D. $1,215.6 million.
Answer: A

As the MPS decreases, the multiplier will
   A. increase.
   B. decrease.
   C. remain constant.
   D. either increase or decrease depending on the size of the change in investment.
Answer: A

Midwest State University in Nebraska is trying to convince Nebraska taxpayers that the tax dollars spent at Midwest State University are well spent. One of the university's arguments is that for every $1 spent by Midwest State University an additional $5 of expenditures are generated within Nebraska. Midwest State University is arguing that the multiplier for their expenditures is
   A. 0.2.
   B. 1.
   C. 4.
   D. 5.
Answer: D

If autonomous consumption increases, the size of the multiplier would
   A. increase.
   B. decrease.
   C. remain constant.
   D. either increase or decrease depending on the size of the change in autonomous consumption.
Answer: C

In practice, the actual size of the multiplier is about
   A. 1.
   B. 1.4.
   C. 2.
   D. 4.
Answer: B

According to the "paradox of thrift," as individuals increase their saving,
A. income in the economy increases because there is more money available for firms to invest.
B. income in the economy increases because interest rates will fall and the economy will expand.
C. income in the economy will remain constant because the change in consumption equals the change in saving.
D. income in the economy will fall because the decreased consumption that results from increased saving causes the economy to contract.
Answer : D

According to the "paradox of thrift," increased efforts to save will cause a(n)
A. increase in income and an increase in overall saving.
B. increase in income but no overall change in saving.
C. decrease in income and an overall decrease in saving.
D. decrease in income but an increase in saving.
Answer : C

True/False

1) The larger the *MPC*, the smaller the multiplier.

Answer: True   ⊙ False

Diff: 2

Skill: F

2) The smaller the MPS, the larger the multiplier.
   Answer: ● True   False
   Diff: 2
   Skill: F

3) If the MPC is .75, then the multiplier is 4.
   Answer: ● True   False
   Diff: 2
   Skill: F

4) An increase in the MPC, reduces the multiplier.
   Answer: True   ● False
   Diff: 2
   Skill: C

5) The paradox of thrift is that all people deciding to save more could lead to them saving less.
   Answer: ● True   False
   Diff: 2
   Skill: C