



## **ECONOMICS**

# BOOKS - RADHA BHUGANA ECONOMICS (HINGLISH)

# INCOME DETERMINATION AND MULTIPLIER

Illustration

1. Find multiplier if: (a) MPC=0.5 (b) 75% of

increased income is consumed.

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2. Find multiplier if (a) 50% of additional

income is saved. (b) MPC=0.25

3. Find change in income if multiplier is 4 and

increase in investment is 15 crore.

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4. Find change in investment if multiplier is 2

and increase in income 8 crore.

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**Practical Application** 

**1.** Estimate the value of ex-ante AD, when autonomous investment and consumption expenditure (A) is 50 crore and MPS is 0.2 and

level of income is 300crore.



**2.** An economy is in equilibrium. From the following data about an economy calculate autonomous consumption:

(i) Income=5000

(ii) Marginal Propensity to save=0.2

(iii) Investment expenditure=800



**3.** An economy is in equilibrium. From the following data about an economy investment expenditure.

- (i) Income=10000
- (ii) Marginal propensity to consumption=0.9
- (ii) Autonomous Consumption = 100

4. In an economy an increase in investment by

100 crore led to an increase in national income

by 1000 crore. Find MPC.

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5. Calculate change in income when MPC=0.8

and change in investment=1000

6. In an economy, investment expenditure is increased by 700 crore and MPC is 0.9.Calculate total increase in income and consumption expenditure

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7. As a result of increase in investment by 20

crore, national income increases by 100 crore.

Find the MPC.



**8.** In an economy, investment increases by 240 crore. The value of multiplier is 4. Calculate MPC.



**9.** In an economy an increase in investment leads to an increase in national income three times more than increase in investment. Calculate MPC.



10. Calculate MPC from the following data about an economy which is in equilibrium: National income=4000, Investment expenditure=200, Autonomous consumption expenditure=400

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**11.** Calculate autonomous consumption expenditure from the following data about in an economy which is in equilibiru: National

income=1000,

MPS=0.3,

expenditure=200.



**12.** Calculate investment expenditure from the following data about an economy which is in equiilbirum: National income=1000, MPS=0.25, autonomous consumption expenditure=200.

13. An increase ₹250 crores in investment in an economy resulted in total increase in income of ₹1000 crore. Calculate the following : (a) MPC (b) Change in savings (c ) Change in consumption expenditure (d) Value of multiplier.

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**14.** An economy is in equilibrium. From the following data, calculate MPS.

(i) Income=10,000

(ii) Autonomous consumption =500

(iii) Consumption expenditure = 8,000



**15.** Calculate investment expenditure from the following data about an economy which is in equilibrium : National Icome = 1000, MPs = 0.2, Autonomous consumption expenditure = 100

**16.** In a two-section ecnomy the income and consuption fuction are as follows: Itbrlt Y = C + 1, C = 40 + 0.75YIf the investments are ₹ 60 crose, calculate, (a) Equilbrium level of iccome, (b) level of consuption at equilbrum, (c) Saving at equilibrium.

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17. In a two sector economy the saving (s) and

investment (I) functions are:

S = -10 + 0.2Y, I = -3 + 0.1Y

What will be the equilibrium level of income (Y)?

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18. In an economy S= - 50+50Y is the saving function and investment expenditure is ₹
7000. Calculate : (i) Equilibrium level of income
(ii) Consumption expenditure at equilibrium level of national income.

**19.** In an economy, investment increases from 300 to 500. As a result of this equilibrium level of income increase by 2000. Calculate the marginal prepensity to consume.

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20. In an economy, level of income is ₹ 2000 crore and MPC= 0.75. Calculate total income if investment is increased by ₹ 200 crore.

21. In an economy, the actual level of income is
₹ 500 crores whereas full employment of Y is ₹
800 crore. MPC = 0.75. Calculate how much change in investment is required to achive full employment level in the economy.

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**22.** In an economy, 20 % of increasec income is

saved. How much will be the increase in

income if investment rises by 10, 000 ?

Calculate.



23. An economy is in equilibrium MPC, National

income=1000, Autonomous consumption

expenditure=200, Investment expenditure=100.





Recapitulate

**1.** If the consuption function in an economy is

C=50+0.75Y` and the autonomous investmenet

is 30 crore, calculate the equilibrium level of

income.



2. Given that the saving function isS=-50+0.80Y and the investment 110 crore.Calculate the equilibrium level of income.



**3.** The economy attains equilibrium at a point where the saving curve intersects the investment curve.



4. Multiplier is the ratio of the increase in

income to a given increase in investment



5. Under employment equilibrium is a situation where the aggregate demand is equal to aggreagate supply when the resources are not fully employed.

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### Mcq

**1.** The equilibrium level of income is determined where planned aggregate demand

#### is equal to

A. planned consumption

B. planned aggregate supply

C. planned investment

D. none of these

Answer: B



**2.** Equilibrium level of income can be determined at

A. full employment

B. under full employment

C. over full employment

D. all of these

Answer: D

**3.** At higher level of MPC, the value of multiplier is

A. high

B. low

C. does not change

D. all of these

Answer: A

4. Multiplier ist he ratio of increase in income

to a given increase in

A. supply

B. demand

C. investment

D. capital stock

Answer: C

5. If change in investment is 1000 and MPC is

0.8, then income will change by

A. 1250

B. 2500

C. 5000

D. 10000

Answer: C

**6.** If MPS is 0.8 and increase in investment in 10000, national income will increase by.

A. 5000

B. 25000

C. 12500

D. 100000

Answer: C

7. If MPC is greater than MPS, the value of

multiplier will be



8. In an increase of 10000 in investment in an

economy results in an increase in income of

40000, what will be MPS.





**1.** What is full employment equilibrium ?







6. How does multiplier work?

#### 7. What is over full employment cquilibrium ?

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#### **Conceptual Questions**

1. What is meant by equilibrium ?



**4.** What is meant by effective demand ?

#### **5.** What is equilibrium income?

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6. Differentiate between full employment and

under-employment equilibrium.



High Order Thinking Skiils

**1.** Discuss the impact of injections and leakages (or withdrawals) on the level of equilibrium.



**2.** Explain 'paradlox of thrift'.



3. (a) Can an economy be in state of under employment equilibrium ? Use diagram.
(b) Why do we say that an economy generaly functions at less than full employment level ? Is it justified?

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4. Can we think that classical belief can help in

functioing of our economy?

#### **Guidelines To Ncert**

1. Measure the level of ex-ante aggregate demand when autonomous investment and consumption expenditure (A) is 50 crore, and MPS is 0.2 and level of income (Y) is Rs.4000 crore. State whether the economy is in equilibrium or not (cite reasons)

**2.** Measure ex-ante AD, when autonomous investement and consumption expenditure (A) is 50crore, and MPS is 0.2 and level of income is 300crores.

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**1.** In an Economy , Investment increases by 300 crores due to which National Income increases





2. A 400 crore increase in investment leads to a rise in National Income by 1000 crores. Calculate MPS ?

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**3.** Define the term multiplier. How do we measure it ?



**4.** In an Economy , Investment rises by 500 crores. If MPC is 0.6 , By how much amount National Income will rise ?



5. How is multiplier related to MPC and MPS ?

6. What is the minimum value of multiplier?



calculate the value of the multiplier.

**9.** If MPC is 0.6 , what is the value of the multiplier ?



**10.** An increase of 100 crore in investment leads to a rise of 500 crores in the national income. Calculate the value of multiplier .

11. If the value of MPS is 0.25, what is value of

multiplier?



12. If the value of MPS is 0.2, what is the value

of multiplier ?

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**13.** If MPS is 0.1, calculate the value of multiplier.



**15.** An increase in investment in a country leads to increase in national income by Rs.200 crore. If marginal propensity to consume is 0.75, what is the increase in investment ?





16. A 200 crore increase in investment leads to

a rise in national income by 1000 crore. Find

out marginal propensity to consume.

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**17.** Given increase in investment of 100 crore and marginal propensity to consume equal to 0.8. Find out increase in national income.

**18.** If increase in investment is Rs.125 crore, national income of a country increases by 500 crore. Calculate marginal propensity to save.

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19. In an economy, investment increases by 120

crore. The value of investment multiplier is 4.

Calculate the marginal propensity to consume.

**20.** In an economy, investment increases by Rs.120 crore. The value of investment multiplier is 4. Calculate the marginal propensity to consume.

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**21.** In an economy, investment expenditure is increased by 400 crore and marginal propensity to consume is 0.8. Calculate the total increase in income and savings.



**22.** In an economy, investment increases by 600 crore. If marginal propensity to consume is 0.7. What is the increase in total national income?

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Short Answer

 Explain the meaning of investment multiplier. What can be its minimum value and why



**2.** In an economy an increase in investment than the increase national income which is three times more than the increase in investmebt. Calculate MPC.



**3.** Explain the relationship between nvestment multiplier and MPC.

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#### **Unsolved Numericals**

1. An increase in investment by 800 crore leads

to increase in national income by 2400 crore.

Calculate MPC...



**2.** If MPS 0.2 how much new investment is required to make the national income rise by 600 crores ? Explain.

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**3.** Given MPS equal to 0.75. What will be the increase in national income, if investment increases by 125 crore ? Calculate.

**4.** If MPC is 0.9. What is the value of multiplier? How much investment is needed to increase national income by 5000 crore ? Calculate.

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**5.** It is planned to increase national income by 1000 crore. Calculate, how much increase in investment is required to achieve this goal. Assume that MPC is 0.6.





**6.** As a result of increase in investment by 125 crore, national income increases by 500 crore. Calculate MPC

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### 7. If MPC =0.5, find change in income, if

investment increases by 400 crore.

8. As a result of increase in investment by

Rs.60 crore, national income rises by 240 crore.

Calculate Marginal propensity to consume



**9.** In an economy, MPC is 0.75. Investment expenditure increases by 75 crore, calculate

total increase in national income.



**10.** In an economy, MPS= 0.4. National income increases by 200 crore as a result of change in investment. Calculate the change in investment.

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11. In an economy, C = 300 + 0.8 Y and I= 500 ..

Calculate the following :

( i) Equilibrium level of income

(ii) Consumption expenditure at equilibrium

level of income.



**12.** In an economy, C = 100 + 0.9Y and J= 700.

Calculate the following :

- (i) Equilibrium level of income
- (ii) Consumption expenditure at equilibrium

level of income.



**13.** In an economy, every time income rises, 75% of the rise in income is spent on consumption. Now suppose in the same economy investment rises by Calculate the following :

(i) Change in income

(ii) Change in saving

**14.** In an economy with every increase in income 15% of the increased income is saved. Suppose a fresh investment of 600 crore takes

place in the economy,

calculate the following:

(1) Change in income

(ii) Change in consumption.

**15.** In an economy C=500 + 0.9Y and I= 1000,

Find (i) equilibrium level of income

(ii) consumption at equilibrium.



**16.** From the data given below about ·an economy calculate:

(a) Investment-expenditure

(b) Consumption expenditure

(i) Equilibrium level of income 5000

(ii) Autonomous consumption 500

(iii) Marginal propensity to consume 0.4



**17.** In an economy C=200 +0.75Y is the consumption function where C is consumption expenditure national income. Investment expenditure is 5000. Calculate equilibrium level of income consumption expenditure.



**18.** From the following data about an economy, calculate (a) equilibrium level of national income and (b) total consumption expenditure at equilibrium level of national income.

(i) C =200 +0.5Y

(ii) Investment expenditure is 1500



**19.** C= 100 + 0.4Y is the consumption function of an economy where C is consumption expenditure and Y is National Income. Investment expenditure is 2000. Calculate (i) Equilibrium level of National Income (ii) Consumption expenditure at equilibrium level of National Income.

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**20.** Calculate MPC from the following data about an economy which is in equilibrium : National income =1500, autonomous consumption expenditure, investment expenditure =300.





**21.** Calculate investment expenditure from the following data about an economy which is in equilibrium national income = 700, MPC = 0.8,

autonomous consumption expenditure = 70.



**22.** Calculate autonomous consumption expenditure from the following data about an economy which is in equilibrium : National

income = 2400, MPS= 0.4, investment

expenditure = 200

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**23.** Calculate consumption expenditure from the following data about an economy which is in equ1libnum : National income=900, MPS= 0.10, investment expenditure=80.

**24.** An economy is in equilibrium. Calculate the inveshnent expenditure from the following : National income = 1000,MPS= 0.3 ,

Autonomous consumption= 100.

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25. An economy is in equilibrium. CalculateMPS from the following: National income=1000, Autonomous

consumption=100,Investment=120.



<b>26.</b> An economy is in equilibrium. Calculate the					
National	Income	from	the	following	, ·
Autonomo	us consu	umptior	า = 1	20, Marg	inal
propensity	to	save=	÷0.2,	Investm	ent
expenditure = 15					

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27. In an economy investment is increased by Rs. 400 crore. If  $MPC = \frac{2}{3}$  calculate increase





**28.** Suppose MPC is 0.8. How much increase in investment is required to increase National income by 2000 crore. Calculate.

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**29.** An economy is in equilibrium. Find MPC.

Autonomous consumption expenditure = 100,

income=2000.

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**30.** An economy is in equilibrium. Find

investment expenditure. National income =

1000, Autonomous consumption = 100, MPC=0



**31.** An economy is in equilibrium. From the following data calculate autonomous consumption. (i) Income = 10,000 (ii) MPS = 0.2

(iii) Investment 1500