Economics 102 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Summer 2011

Answers to Quiz #4

Please write your answers legibly and in the spaces provided. We reserve the right to count answers wrong that are illegible.

1. Use the following table for this set of questions.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y (Real GDP) | T – TR | C | S (private saving) | I | G | X- M | Change in Inventories | Change in Real GDP |
| 100 | 20 | 60 | 20 | 20 | 20 | 20 | -20 | Increase |
| 300 | 20 | 160 | 120 | 20 | 20 | 20 | 80 | Decrease |
| 500 | 20 | 260 | 220 | 20 | 20 | 20 | 180 | Decrease |
| 700 | 20 | 360 | 320 | 20 | 20 | 20 | 280 | Decrease |

1. Given the above information, what is the marginal propensity to consume? Show your work and provide the general formula for the MPC.

Answer:

MPC = (change in consumption)/(change in disposable income)

MPC = 300/600 = .5

1. Given the above information, what is the marginal propensity to save? Show your work and provide the general formula for the MPS.

Answer:

MPS = 1 – MPC

MPS = .5

1. Given the above information, what is autonomous consumption? Assume that this is the constant in the consumption function written with respect to disposable income? Show how you found the value for autonomous consumption.

Answer:

C = a + b(Y – (T- TR))

C = a + .5(Y – (T – TR))

C = a + .5(Y – 20)

C = a + .5Y – 10

60 = a + .5(100) – 10

20 = a

1. Write the equation for saving as a function of Y.

Answer:

S = -a + (1 – b)(Y – (T – TR))

S = -20 + .5(Y – 20)

S = -20 + .5Y – 10

S = -30 + .5Y

1. Fill in all the missing cells in the above table.
2. Calculate the equilibrium value of Y given the above information. Show your work.

Answer:

Y = AE in equilibrium

AE = C + I + G + (X – M)

Y = 10 + .5Y + 20 + 20 + 20

.5Y = 70

Y = 140