

Important Formulas

Sr. No.	Particulars	Formula
1	Price Elasticity of Demand	$E_p = \% \text{ Change in Quantity Demanded} / \% \text{ Change in Price}$
2	Point Elasticity	$E_p = -(dq/dp) \times (p/q)$
3	Slope of Demand Curve	$\text{Slope} = \Delta P / \Delta Q$
4	Total Utility	$TU = \sum MU$
5	Marginal Utility	$MU = TU_n - TU_{n-1}$ or $MU = \Delta TU / \Delta N$
6	Consumer Surplus	Consumer Surplus = What consumer is willing to pay – What consumer actually pays
7	Marginal Rate of Substitution	$MRS_{xy} = MU_x / MU_y$
8	Consumer Equilibrium	$MU_x/P_x = MU_y/P_y$
9	Slope of Budget Line	P_X / P_Y
10	Elasticity of Supply	$E_s = \text{Percentage Change in Quantity Supplied} / \text{Percentage Change in Price}$
11	Elasticity Formula	$E_s = (\Delta Q/Q) \times (P/\Delta P)$
12	Point Elasticity	$E_s = (dq/dp) \times (p/q)$
13	Arc Elasticity	$E_s = [(Q_2 - Q_1)/(Q_2 + Q_1)] \times [(P_2 + P_1)/(P_2 - P_1)]$
14	Cobb-Douglas Production Function	$Q = K L^a C^{(1-a)}$
15	Average Product	$AP = \text{Total Product} / \text{No. of Units of Variable Factors}$
16	Marginal Product	$MP_n = TP_n - TP_{n-1}$
17	Total Cost	$TC = TFC + TVC$
18	Average Fixed Cost	$AFC = TFC / Q$
19	Average Variable Cost	$AVC = TVC / Q$
20	Average Total Cost	$ATC = AFC + AVC$ $ATC = TC / Q$

21	Marginal Cost	$MC = \Delta TC / \Delta Q$ & $MC_n = TC_n - TC_{n-1}$
22	Total Revenue	$TR = P \times Q$
23	Average Revenue	$AR = TR / Q$ $AR = P$
24	Marginal Revenue	$MR = \Delta TR / \Delta Q$ & $MR_n = TR_n - TR_{n-1}$
25	Marginal Revenue & Elasticity Relation	$MR = AR \times e / (e - 1)$
26	Average Revenue	$AR = TR / Q$
27	Marginal Revenue	$MR = \Delta TR / \Delta Q$
28	GDP Deflator	$GDP\ Deflator = Nominal\ GDP / Real\ GDP \times 100$
29	Inflation Rate	$(GDP\ Deflator\ Year\ 2 - GDP\ Deflator\ Year\ 1) / GDP\ Deflator\ Year\ 1 \times 100$
30	Disposable Income	$DI = PI - Personal\ Income\ Taxes - Non-tax\ payments$
31	Basic Price	$Basic\ Price = Factor\ Cost + Production\ Tax - Production\ Subsidy$
32	Market Price	$Market\ Price = Basic\ Price + Product\ Tax - Product\ Subsidy$
33	Private Income	$Private\ Income = Factor\ income + transfers + NFIA$
34	National Income by Value Added Method	$NNPFC = GDPMP + NFIA - NIT - Depreciation$
35	Aggregate Demand	$AD = C + I$
36	Consumption Function	$C = a + bY$
37	Marginal Propensity to Consume	$MPC = \Delta C / \Delta Y$
38	Average Propensity to Consume	$APC = C / Y$
39	Saving Function	$S = Y - C$
40	Marginal Propensity to Save	$MPS = \Delta S / \Delta Y = 1 - b$
41	Average Propensity to Save	$APS = S / Y$
42	Aggregate Supply	$AS = C + S$
43	Two Sector Equilibrium	$C + I = C + S$ or $I = S$

44	Multiplier	$k = \Delta Y / \Delta I$
45	Multiplier Formula	$k = 1 / (1 - MPC) = 1 / MPS$
46	Three Sector Equilibrium	$Y = C + I + G$
47	Disposable Income	$Y_d = Y - T$
48	Tax Function	$T = \bar{T} + tY$
49	Four Sector Equilibrium	$Y = C + I + G + (X - M)$
50	Import Function	$M = \bar{M} + mY$
51	Foreign Trade Multiplier	$1 / (1 - b + m)$
52	$R > E$	Surplus Budget
53	Revenue Deficit = Revenue Expenditure – Revenue Receipts	Measures shortfall in revenue receipts.
54	Fiscal Deficit = Revenue Deficit + (Capital Expenditure – Capital Receipts excluding borrowing)	Expanded fiscal deficit formula.
55	Primary Deficit = Fiscal Deficit – Net Interest Liabilities	Measures current fiscal imbalance excluding interest.
56	Budgetary Deficit	Excess of total estimated expenditure over total estimated revenue.
57	$MV = PT$	Fisher's Equation of Exchange.
58	$MV + M'V' = PT$	Expanded Quantity Theory including bank deposits.
59	$M_d = kPY$	Cambridge cash balance equation.
60	$L_r = kY$	Keynesian transactions demand for money.
61	$C = \sqrt{2bY/r}$	Baumol's Square Root Rule for optimal cash withdrawal.
62	$M_1 = \text{Currency} + \text{Demand Deposits} + \text{Other Deposits}$	Narrow money definition.
63	$M_2 = M_1 + \text{Savings Deposits of Post Office}$	Expanded money supply measure.

64	$M3 = M1 + \text{Time Deposits}$	Broad money definition.
65	$M4 = M3 + \text{Total Post Office Deposits}$	Broadest measure of money supply.
66	$M = m \times MB$	Money supply formula.
67	Money Multiplier = Money Supply / Monetary Base	Shows expansion of money supply.
68	$m = (1+c)/(r+e+c)$	Money multiplier including excess reserves.
69	Credit Multiplier = 1 / Required Reserve Ratio	Deposit expansion multiplier.
70	$ER = TR - RR$	Excess reserves formula.
71	Reverse Repo Rate = Repo Rate - 1	Relationship between repo and reverse repo.
72	$MSF \text{ Rate} = \text{Repo Rate} + 1$	Marginal Standing Facility formula.
73	Common Market	Customs union allowing free movement of factors of production.
74	Real Exchange Rate = Nominal Exchange Rate \times Domestic Price / Foreign Price	Formula for real exchange rate.
75	Real Exchange Rate = Nominal Exchange Rate \times Domestic Price Index / Foreign Price Index	Formula using price indices.