

① variables and parameters are the building blocks of a mathematical model.

True

② In $8x$, the value 8 is called:

coefficient

③ In $9x$ the x is called

④ $\pi = 3.141592$ is an example of:

⑤ $\frac{4}{3}$, $\frac{5}{4}$, $\frac{8}{3}$ are example of

Rational num.

⑥ Infinity is undefined

True

⑦ $7x$ is 7 times larger than x

True

⑧ $-10y$ is 10 times smaller than y
they

True

⑨ Two major ingredients of logical reasoning are proposition and implication.

True

① Union of sets is similar to addition of things.
True

② Finding complement in sets is similar to **subtraction**

③ If $A = \{3, 4, 5\}$ and $B = \{3, 4, 6, 7\}$
then $A \cap B = ?$ **$\{3, 4\}$**

④ If $A = \{3, 4, 5\}$ and $B = \{3, 4, 6, 7\}$
then $A \cup B = ?$ **$\{3, 4, 5, 6, 7\}$**

⑤ $A \cup B = B \cup A$ is the commutative law of operations of sets.
True

⑥ $A \cap B = B \cap A$ is the commutative law of sets operation.
True

⑦ In associative law of union order of selection does not matter.
True

⑧ In a four quadrant diagram both x and y coordinates are positive in Quadrant I
True

izing

(1) In function $Y = f(X)$, Y is:
Dependent variable

(2) In function $Y = f(X)$, X is:
Independent variable

(3) In the ordered pair (x, y) all
values of x are called:
Domain

(4) In ordered pair (x, y) all
values of y are called:
Range

(5) In the ordered pair $(2, 4)$
2 is called:
Domain

(6) In the ordered pair $(3, 7)$
7 is called:
Range

(7) A vertical line cuts a
function on one point only.
True

(8) A vertical line cut a
relation on multiple points.
True.

(9) Relation between taxation rate and government
revenue is called:
Laffer curve

(10) Laffer curve is inverted U
shaped curve.
True

- ① In constant function, power of independent variable is

Zero

- ② Autonomous consumption is an example of constant function.

True

- ③ In linear function power of an independent variable is.

one or undefined

- ④ $y = f(x) = a + bx$ is linear function.

True

- ⑤ Degree of a linear function is equal to one.

True

- ⑥ Linear functions are plotted as a straight line on the graph.

True

- ⑦ In consumption function $C = C_0 + MPC \cdot Y$, C_0 is autonomous consumption.

True

- ⑧ In consumption function $C = C_0 + MPC \cdot Y$, MPC shows the slope of consumption function.

True

① Quadratic function are plotted as parabola on the graph

True

② In Quadratic function maximum power of an independent variable is

Two

③ Maximum degree of a quadratic function is equal to two

True

④ Maximum degree of a cubic function is equal to three

True

⑤ In cubic function, maximum power of an independent variable is.

Three

① Ratio of two polynomial function is called :

Rational function

② Elasticity at all points should be equal to one for hyperbola

True

③ Hyperbola is similar to parabola but not the same :

True

④ Hyperbola is wider than parabola

True

⑤ Exponential function are non-algebraic function.

True

⑥ In exponential function, independent variable occur as a root of power.

True

⑦ Natural exponential function are a special type of exponential function.

True

⑧ Natural exponential function are represented by using e in the expon

True

⑨ e = exponential has a constant value of 2.718

True

① $\log(4 \times 3) = \log(4) + \log(3)$ True

② $\log\left(\frac{5}{2}\right) = \log(5) - \log(2)$ True

③ Natural log function are represented by symbol $\ln$. True

④ $\ln(m \cdot n)$ is equal to $\ln \cdot m - \ln \cdot n$ False

⑤ $\ln\left(\frac{m}{n}\right)$ is equal to $\ln m + \ln n$ False

⑥ Inverse function is reciprocal of a function. True

① Equation are mathematical expression with equality and true for certain value not all values.

True

② Identities are mathematical equalities that are true for all values of x .

True

③ Definitional equal has a reflection of a definition in an equation.

True

④ Definitional equation is an identity having the opposite meaning.

False

⑤ Fiscal Deficit = Government Expenditure
 > Government Income.

True

⑥ Behavioral equation specifies the manner in which dependent variable behaves in response to change in independent variable.

True

⑦ aggregate consumption in relation to national income is an example of behavioral equation.

True

⑧ conditional equation specify the requirement to be satisfied

True

⑨ $Saving = Investment$ is a conditional equation.

True

① partial linear market equilibrium deals with one commodity.

True

② Income is a factor that may shift the demand curve in partial linear market equilibrium.

True

③ Improvement in technology is a factor that may shift the supply curve in partial linear market equilibrium.

True

$$b + g \neq 1$$

① partial market equilibrium deals with: **One commodity**

② General market equilibrium deal with: **Two commodities**

③ what does Y represented in the simple Keynesian model $Y = C + I_0 + G_0$ **National Income**

④ what does C_0 represented in the simple " " " " **Autonomous govt expenditure.**

$C = a + bY$ is the consumption function.

True

① A matrix with either single row or single column is called as :

vector

② matrices can't be divided

True

③ matrices can only be solved in linear algebra.

True

④ Total Cost can be calculated with the help of matrices operation.

True

⑤ Total Revenue can be calculated with the help of matrices operation.

True

⑥ Total Profit can be calculated with the help of matrices operation.

True

⑦ Division of two matrices is possible.

False

(1) According to which law of matrices operation $A+B=B+A$ holds.

Commutative law

(2) According to which law of matrices operation $A+(B+C)=(A+B)+C$ hold

Associative law

(3) According to which law of matrices operation $A \times (B+C) = AB+AC$ hold.

Distributive law

(4) For m rows and n columns in a matrix if $m=1$ and $n>1$ then it is called as:

Row vector

(5) For m rows and n columns in a matrix if $m>1$ and $n=1$ then it is called as:

Column vector

(6) $(A+B)^{\text{transpose}} = (A)^{\text{transpose}} + (B)^{\text{transpose}}$

True

(7) Adjoint matrix is found by transposing the adjugate matrix.

True

(1) $Q_d = a - bP$ is the demand equation:

True

(2) $Q_s = -c + dp$ is the supply equation

True

(3) $Y = C + I_o + G_o$ is the national income model.

True

(4) $C = a + bY$ is the consumption function.

True.

① Input coefficient matrix is attributed to Leontief.

True

② Input output analysis can be of great use in economic planning.

True

③ Hawkins-Simon Condition guarantees the existence of a non-negative output vector.

True

④ If all variables are at rest an equilibrium is often called a static.

True

⑤ Comparing equilibria is called comparative statics.

True.

① The identity matrix is a $n \times n$ square matrix with the main diagonal of 1's and all other elements are zeros.

True

② To find the inverse of matrix A , divide each element of the Adjoint matrix by the determinant of A .

True

③ If matrix A is multiplied by its inverse matrix the resultant matrix is identity matrix.

True



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