25 March 2020

GMAT

Quants

Thiyagarajan Manihatty Bojan

Algebra

15 GMAT Practice Questions | With Videos

Linear and quadratic equations. Functions. Polynomials. Types of solution of linear equation and nature of roots of quadratic equations. Word problems.

Number Properties

30 Problems in GMAT Questionbank | With Videos

Factors, Multiples, LCM, HCF, remainders, factorials, exponents, and number systems. Sequences & Series - Arithmetic & Geometric Progression.

Inequalities

9 GMAT Quant Sample Questions | Videos Soon

Inequalities in linear and quadratic expression. Inequalties of products and quotients. Absolute value and exponents. Word problems in inequalities.

Set Theory

4 Questions in GMAT Questionbank | Videos Soon

Union and intersection of 2 and 3 sets. Subsets, number of subsets, power sets. Venn diagrams. Disjoint sets and complement of a set.

Statistics & Average

11 GMAT Quant Questions | With Videos

Average (arithmetic mean), weighted average, median, mode, range, variance and standard deviation. AM - GM - HM inequality.

Ratio, Percent, Fractions

19 GMAT Math Questions | With Videos

Ratios, proportions, mixtures, fractions to percents and percents to fraction. Percent change, profit, discounts, simple & compound interest.

Rates Work, Speed

9 GMAT Practice Questions | With Videos

Speed, distance, time, average speed, and relative speed. Work time and work wages questions. Many of these are classic word problems.

Permutation Probability

9 in GMAT Questionbank | With Videos

Repeated sampling with and without replacement. Sampling where order matters and where it does not matter. Ways of reordering. Discrete probability.

Geometry

14 GMAT Geometry Sample Questions | Videos Soon

Lines, angles, parallel lines, polygons, triangles, circles, and quadrilaterals. Similar and congruent triangles. Solids - volume, surface area.

Coordinate Geometry

5 Problems in GMAT Questionbank | Videos Soon

Length of line segment, slope of line, collinearity, area of triangle, equation of lines, parallel and perpendicular lines. Equation of circles.

Data Sufficiency

32 GMAT DS Practice Questions | With Videos

A little more than a third of the questions in the GMAT quant section are data sufficiency questions. Same quant concept - tested interestingly.

Must Solve Questions

25 GMAT Hard Math Questions | With Videos

Must Solve GMAT Quant questions. Spanning arithmetic, algebra, geometry. In both formats - problem solving and data sufficiency.

Number Properties

Thiyagarajan Manihatty Bojan

Nos - Not Fractions

IR-Rational Numbers √2, √7, π, cube root

Real Numbers

When you square it
You will get a +ve value

Rational Numbers

Fractions -128/1, -2, -14/3 …. -1, 0 , 1, 128.23

Integers Numbers

- Integers -128, -127 …. -1, 0 , 1, …. 127, 128 + Integers

Whole Numbers

With zero 0,1,2 ….

Natural Numbers

1, 2, 3, …..

Thiyagarajan Manihatty Bojan

Imaginary Numbers

$(\sqrt{-1})^2 = -1$

$3 + 2i$ complex number

GMAT is Restricted towards Real Number and does not go with Imaginary Numbers

Thiyagarajan Manihatty Bojan

Rational Numbers

Any number that can be expressed in form of p/q, where p and q are integers
And q not equal to zero

Natural numbers + Whole numbers + Integers are all Rational numbers

Terminating Decimals : 4.3, 8.44, 5

If non Terminating Decimals, then it should be recurring decimals :

1/3 = 0.3333… ,

1/7 = 0.142857 142857

Thiyagarajan Manihatty Bojan

IR - Rational Numbers

Any number that **cannot** be expressed in form of p/q, where p and q are integers
And q not equal to zero

Non - Terminating Decimals

Non - Recurring decimals

Thiyagarajan Manihatty Bojan

NUMBER PLACE

1 2 4 7

7 x 1

4 x 10

2 x 100

1 x 1000

One Thousand Two Hundred and Forty Seven

Thiyagarajan Manihatty Bojan

Even Numbers

Even numbers are integer numbers that are multiples of 2

Eg: -4, -2, 0, 2, 4, 6, 8 , 10

1 2 4 8

Its 1's place is always even

8 x 1 → Even Number

4 x 10

2 x 100

1 x 1000

EVEN + EVEN = EVEN

Thiyagarajan Manihatty Bojan

ODD Numbers

Odd numbers are integer numbers that are not multiples of 2 and when Divided by 2 leaves a reminder 1

Eg: -3, -1, 1, 3, 5, 7, 9 , 11

Its 1's place is always even

1 2 4 9

9 X 1 → Odd Number

4 X 10

2 X 100

1 X 1000

ODD + ODD = EVEN

EVEN + ODD = ODD

Thiyagarajan Manihatty Bojan

Prime Numbers

Subset of Natural Numbers that have exactly 2 factors (1 and itself)

Eg: 2, 3, 5, 7, etc

2 is the smallest prime and the only even prime, rest all prime numbers Are odd.

Eg: 8

1 x 8

2 x 4

4 x 2

8 x 1

4 factors

It cannot be Prime.

Thiyagarajan Manihatty Bojan

Composite Numbers

Subset of Natural Numbers that have minimum of 3 factors

Eg: 4, 12, 15, 77, … etc

2 is the smallest prime and the only even prime, rest all prime numbers Are odd.

Eg: 8

1 x 8

2 x 4

4 x 2

8 x 1

4 factors

It is a composite number.

Thiyagarajan Manihatty Bojan

Is 1 a prime or composite ?

Thiyagarajan Manihatty Bojan

Is 1 a prime or composite ?

1 is neither a Prime nor a composite number

Thiyagarajan Manihatty Bojan

Is 1 a prime or composite ?

1 is neither a Prime nor a composite number

Thiyagarajan Manihatty Bojan