INFINITY VISION
RE–IMAGINING EDUCATION

PRACTICE PAPER
&
FORMULA SHEET
Mathematics

CLASS - X

For Solutions

visit us at www.infinityvision.in

Did you know that board toppers practice at least 20 sample paper before actual exam, to master the art of answer writing

Schedule of Various Engineering Entrance Exams.

Name of Exams	Number of Seats	Months of Notification	Tentative Date of Entrance Exams
Joint Entrance Examination (JEE-Main)	Approx. 5.5 Lakh seats became accessible through JEE	Oct./Nov.	Offline Exam: 1st Week of April
Join Entrance Examination (JEE – Adv.)	Approx. 10575 seats	Oct./Nov.	Offline Exam only 3rd week of May
Vellore Institute of Technology (VITEE) Vellore	Approx. 3500 seats	Oct./Nov.	Computer Based Test: Mild of April
Birla Institute of Technology and Science (BITS – Pilani) Rajasthan	Approx. 2000 seats	Dec./Jan	Online Test: 2nd week of May to Last week of May
Aligarh Muslim University Combined Entrance Test (AMU - CET) Aligarh	Approx. 365 seats only in B.Tech	Oct. /Nov.	Last week of April
Guru Gobind Singh Indraprastha University (IPU-CET) New Delhi	Approx. 4360 seats	Nov./Dec.	1st week of May
Manipal University Online Entrance Test (MU-OET) manipal	Approx 6500 seats	Nov./Dec.	Online Ent. Test between: Mid April and Mid May
MHT-CET (B. Tech) Maharashtra	-	December	1st Week of May
Utter Pradesh State Entrance Examination (UP-SEE) Lucknow	-	Dec/Jan.	Last week of April

Schedule of Medical Entrance Examinations

Name of Exams	No. of Seats	Months of Notification	Tentative Date of Exams
NEET (National Eligibility cum Entrance Test)	***15% All Quota Seats for merit position in the Govt. Medical/Dental Colleges of India	Nov /Dec	1st Week of May
AIIMS (All India Institute of Medical Sciences)	**Approx. 672 seats in all AIIMS in India	Dec /Jan	End of May/ 1st Weak of June
JIPMER (Jawaharlal Institute of Postgraduate Medical Education & Research)	Approx. 150 seats for Puducherry-Campus and 50 seats for karaikal-Campus	Oct /Nov	1st week of June

MATHEMATICS

Time allowed: 3 hours **Maximum Marks: 80**

General Instructions:

(i) All question are compulsory.

(ii) The question paper consists of 30 questions divided into four sections – A, B, C and D. Section A comprises of **Ten** question of **1 mark** each. Section B comprises of **five** question of **2 marks** each. Section C comprises of ten questions of **3 marks** each and Section D comprises of **five** questions of **6 marks** each.

(iii) All questions in section A are to be answered in one word, one sentence or as per the exact requirement of the question.

(iv) In question on construction, the drawings should be neat and exactly as per the given measurement.

(v) Use of calculator is not permitted.

SECTION –A

1. One equation of a pair of dependent linear equations is $-5x + 7y = 2$, the second equation can be :

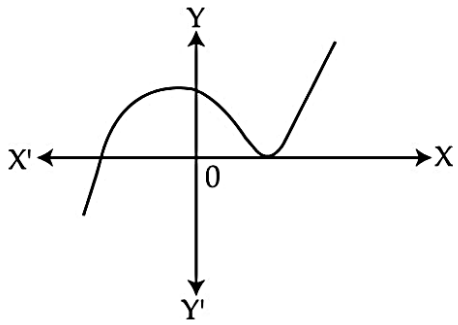
   (a) $10x + 14y + 4 = 0$ (b) $-10x - 14y + 4 = 0$

   (c) $-10x + 14y + 4 = 0$ (d) $10x - 14y = -4$

2. The value of $\tan 1^0 . \tan 2^0 . \tan 3^0 \ldots\ldots \tan 89^0$ is:

   (a) 0 (b) 1 (c) 2 (d) $\frac{1}{2}$

3. The graph of $y = p(x)$ is given below. The number of zeroes of $p(x)$ are:



   (a) 0 (b) 3 (c) 2 (d) 4

4. The first term of an A.P. is p and its common difference is q. Find its 10^{th} term.

5. The lengths of the diagonals of a rhombus are 30 cm and 40 cm. Find the side of the rhombus.

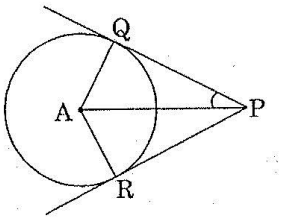
6. In a right triangle ABC, right-angled at B, BC = 12 cm and AB = 5 cm. The radius of the circle inscribed in the triangle (in cm) is

   (a) 4 (b) 3 (c) 2 (d) 1

7. A chord of a circle of radius 10 cm subtends a right angle at its centre. The length of the chord (in cm) is

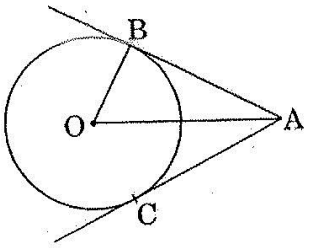
(a) $5\sqrt{2}$ (b) $10\sqrt{2}$ (c) $\frac{5}{\sqrt{2}}$ (d) $10\sqrt{3}$

8. In Figure, PQ and PR are tangents to a circle with centre A. If $\angle QPA = 27^0$, then $\angle QAR$ equals



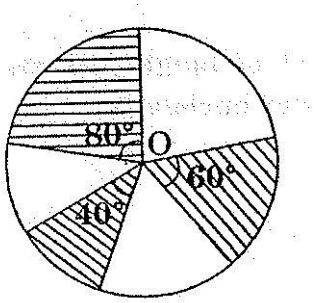
(a) 63^0 (b) 153^0 (c) 126^0 (d) 117^0

9. In Figure, AB and AC are tangents to a circle with centre O and radius 8cm. If OA = 17 cm, then the length of AC (in cm) is



(a) $\sqrt{353}$ (b) 15 (c) 9 (d) 25

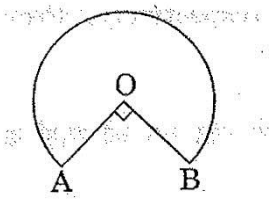
10. In figure three sectors of a circle of radius 7cm, making angles of 60^0, 80^0, 40^0 at the centre are shaded. The area of the shaded region (in cm^2) is $\left[\text{Using } \pi = \frac{22}{7}\right]$



(a) 77 (b) 154 (c) 44 (d) 22

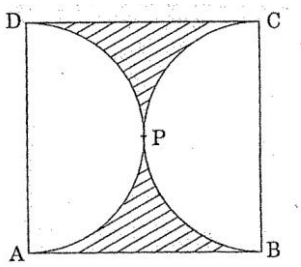
SECTION – B

11. In Figure, the shape of the top of a table is that of a sector of a circle with centre O and $\angle AOB = 90^0$. If AO = OB = 42 cm, then find the perimeter of the top of the table. $\left[\text{Using } \pi = \frac{22}{7}\right]$



OR

Find the area of the shaded region in Figure 5, if ABCD is a square of side 28 cm and APD BPC are semicircles.



12. Find the value of p so that the quadratic equation $px(x - 3) + 9 = 0$ has equal roots.

13. A bag contains tickets, numbered 11, 12, 13, …., 30. A ticket is taken out from the bag at random. Find the probability that the number on the drawn ticket (i) is a multiple of 7, (ii) is greater than 15 and a multiple of 5.

14. A pole of length 10m casts a shadow 2m long on the ground. At the same time a tower casts a shadow of length 50m on the ground, then find the height of the tower.

15. The ages of employees in a factory are as follows:

Age in years	17-23	23-29	29-35	35-41	41-47	47-53
No. of Employees	2	5	6	4	2	1

Find the median age group of the employees.

SECTION – C

16. Show that 4^n can never end with the digit zero for any natural number n.

OR

If d is the HCF of 45 and 27, find x, y satisfying $d = 27x + 45y$

17. If $\text{cosec}(A - B) = 2$, $\cot(A + B) = \frac{1}{\sqrt{3}}, 0^0 < (A + b) \leq 90^0$, A > B, then find A and B.

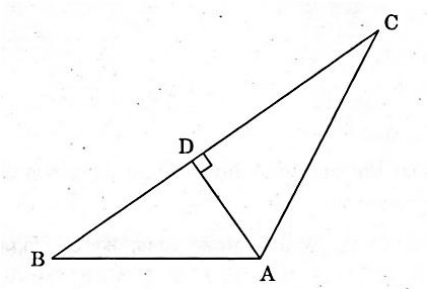
18. Find the missing frequency f if the mode of the given data is 154.

Class:	120-130	130-140	140-150	150-160	160-170	170-180
Frequency:	2	8	12	f	8	7

19. Prove that a parallelogram circumscribing a circle is a rhombus.

OR

In figure , AD ⊥ BC. Prove that $AB^2 + CD^2 = BD^2 + AC^2$



20. Draw a right triangle in which the sides containing the right angle are 5 and 4 cm. Construct a similar triangle whose sides are $\frac{5}{3}$ times the sides of the above triangle.

21. Water in a canal, 6m wide and 1.5 m deep, is flowing at a speed of 4km/h. How much area will it irrigate in 10 minutes, if 8 cm of standing water is needed for irrigation?

22. The sum of the first seven terms of an AP is 182. If its 4^{th} and the 7^{th} terms are in the ratio 1 : 5, find the AP.

23. Find the sum of first 40 positive integers divisible by 6.

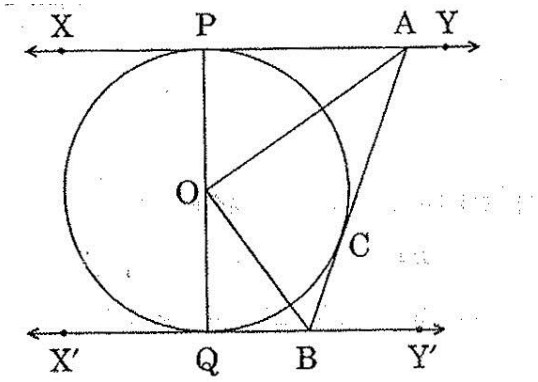
OR

If 4 times the fourth term of an A.P. is equal to 18 times its 18^{th} term, then find its 22^{nd} term.

24. Two tangents TP and TQ are drawn to a circle with centre O from an external point T. Prove that ∠PTQ = 2∠OPQ.

OR

In Figure, XY and X'Y' are two parallel tangents to a circle with centre O and another tangent AB with point of contact C intersects XY at A and X'Y' at B. Prove that $\angle AOB = 90^0$



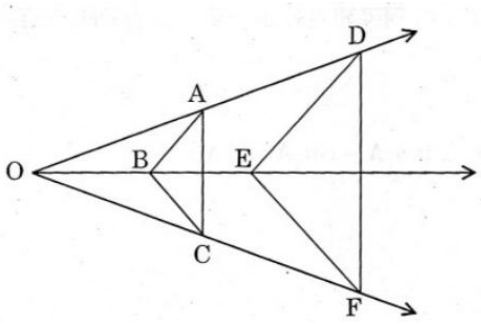
25. For what value of k, (k > 0), is the area of the triangle with vertices (–2, 5), (k, – 4) and (2k + 1, 10) equal to 53 sq. units?

SECTION – D

26. If figure a triangle ABC is drawn to circumscribe a circle of radius 4cm, such that the segments BD and DC are of lengths 8cm and 6cm respectively. Find the sides AB and AC.

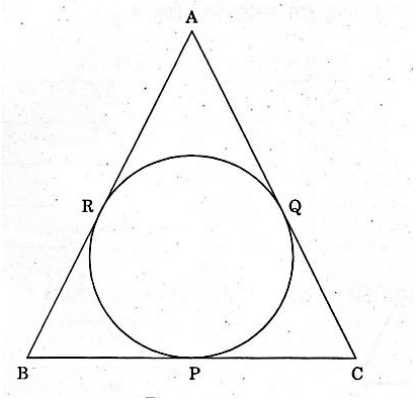
27. If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, prove that the other two sides are divided in the same ratio.

Using the above, Prove that AC || DF If AB|| DE and BC || EF in the giving figure



OR

ABC is an isosceles triangle in which AB = AC, circumscribed about a circle, as shown in Figure. Prove that the base is bisected by the point of contact.



28. Prove that: $(\sin\theta + \text{cosec}\,\theta)^2 + (\cos\theta + \sec\theta)^2 = 7 + \tan^2\theta + \cot^2\theta$

29. Prove that in a right triangle the square of the hypotenuse is equal to the sum of the squares of the other two sides:

OR

If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio. – Prove it.

30. A toy is the shape of cone mounted on a hemisphere of same base radius. If the volume of the toy is 231 cm^3 and its diameter is 7cm, then find height of the toy. $\left[\text{Using } \pi = \frac{22}{7}\right]$

OR

The radii of internal and external surfaces of a hollow spherical shell are 3cm and 5cm respectively. It is melted and recast into a solid cylinder of diameter 14 cm. Find the height of the cylinder.

Mathematics Formulae & some basic concepts

Class- X

Real Number

Euclid's Division Algorithm(lemma) : Given positive integers `a' and `b', there exists unique integers q and r such that a = b.q + r, where $0 \le r < b$ (where a = dividend, b = divisor, q = quotient, and r = remainder.

Polynomials

In step1 : Factorize the given polynomials,

a) Either by splitting the terms, (OR)

b) Using these identities :

(i) $(a+b)^2 = a^2 + 2ab + b^2$ **(ii)** $(a-b)^2 = a^2 - 2ab + b^2$ **(iii)** $a^2 - b^2 = (a+b)(a-b)$

(iv) $a^4 - b^4 = (a^2)^2 - (b^2)^2 = (a^2 + b^2)(a^2 - b^2) = (a^2 + b^2)(a-b)(a+b)$

(v) $(a+b)^3 = a^3 + b^3 + 3ab(a+b)$ **(vi)** $a^3 + b^3 = (a+b)(a^2 + ab + b^2)$

(vii) $(a-b)^3 = a^3 - b^3 - 3ab(a-b)$ **(viii)** $a^3 - b^3 = (a-b)(a^2 + ab + b^2)$

(ix) $(a+b+c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ac$

(x) $a^3 + b^3 + c^3 - 3abc = (a+b+c)(a^2 + b^2 + c^2 - ab - bc - ac)$

Trial & Error method.

In step2 : Take the product of 'Common terms' as their HCF.

In step3 : Take the product of All the terms , Omit, the HCF value which gives you the value of LCM.

Product of LCM × HCF = Product of the two polynomials.

Note: If cubical expression is given, it may be factorized by using 'Trial & Error" method.

Remainder theorem

If (x – 2) is a **factor** of the given expression, then take x-2 = 0,therefore x = 2, then substitute this value in $p(x) = 5x^2 + 3x - 6$ as

$p(2) : 5(2)^2 + 3(2) - 6 = 0$ (Here taking =0 is very important. If not taken answer can't be found.)

If (x-2) leaves a remainder of 4

$p(2) : 5(2)^2 + 3(2) - 6 = 4$ (Here taking =4 is very important. If not taken answer can't be found.)

Linear Equation in two variables

If pair of linear equation is : $a_1 + b_1y + c_1 = 0$ & $a_2x + b_2y + c_2 = 0$

Then nature of roots/zeroes/solutions :

(i) If $a_1/a_2 \neq b_1/b_2 \rightarrow$ system has unique solution, is consistent OR graph is two intersecting lines.

(ii) If $a_1/a_2 = b_1/b_2 \neq c_1/c_2 \rightarrow$ system has no solution, is inconsistent OR graph are parallel lines.

(iii)If $a_1/a_2 = b_1/b_2 = c_1/c_2 \rightarrow$ system has infinite solution, is consistent OR graph are coincident lines.

Quadratic Equations

Note: To find the value of 'x' you may adopt either 'splitting the middle term' or 'formula method',

$x = \frac{-b \pm \sqrt{D}}{2a}$ (where $D = b^2 - 4ac$) Hence $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

- Sum of the roots = – b/a & Product of roots = c/a
- If roots of an equation are given, then :

Quadratic Equation : $x^2 - (\text{sum of the roots}).x + (\text{product of the roots}) = 0$

If Discriminant > 0, then the roots are Real & unequal or unique, lines are intersecting.

Discriminant = 0, then the roots are Real & equal, lines are coincident.

Discriminant < 0, then the roots are Imaginary (not real), parallel lines

If speed of boat = x km/hr and that of stream = y km/hr then speed in **upstream = (x–y)** km/hr and speed in **downstream = (x+y)** km/hr.

Ratio & Proportion

- Duplicate ratio of a : b is $a^2 : b^2$ (Incase of Sub-duplicate ratio you have to take 'Square root')
- Triplicate ratio of a : b is $a^3 : b^3$ (Incase of Sub-triplicate ratio you have to take 'Cube root')
- Proportion a : b = c : d, Continued Proportion a : b = b : c, (Middle value is repeated)

  1^{st} 2^{nd} 3^{rd} 4^{th} proportionals 1^{st} 2^{nd} 2^{nd} 3^{rd} proportionals

- Product of 'Means'(Middle values) = Product of 'Extremes'(Either end values)
- If $\frac{a}{b} = \frac{c}{d}$ is given, then Componendo & Dividendo is $\frac{a+b}{a-b} = \frac{c+d}{c-d}$

Note : " Where to take "K" method ?" You may adopt it in the following situations.

If a/b = c/d = e/f are given, then you may assume as a/b = c/d = e/f = k

Therefore a = b.k, c = d.k, e = f.k, then substitute the values of 'a' 'b' and 'c' in the given problem.

Incase of continued proportion : a/b = b/c = k hence, a = bk, b = ck therefore putting the value of b we can get $a = ck^2$ & b = ck.(putting these values equation can be solved)

Similarity

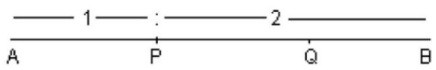
- If two triangles are similar then, ratio of their sides are equal.
  i.e if $\Delta ABC \sim \Delta PQR$ then $\frac{AB}{PQ} = \frac{BC}{QR} = \frac{AC}{PR}$.
- If $\Delta ABC \sim \Delta PQR$ then $\frac{\text{Area of } \Delta ABC}{\text{Area of } \Delta PQR} = \frac{\text{Side}^2}{\text{Side}^2} = \frac{AB^2}{PQ^2} = \frac{BC^2}{QR^2} = \frac{AC^2}{PR^2}$

Distance & Section Formulae

- Distance = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$. (The same formula is to be used to find the length of line segment, sides of a triangle, square, rectangle, parallelogram etc.,)
- To prove co-linearity of the given three points A,B, and C, You have to find length of AB, BC, AC then use the condition AB + BC = AC. **OR** use this condition to solve the question easily :

Area of triangle formed by these points : $\frac{1}{2}.[x_1(y_2 - y_3) + x_2(y_3 - y_1) + x_3(y_1 - y_2)] = 0$

- Section formula: point (x, y) = $\left(\frac{m_1x_2 + m_2x_1}{m_1 + m_2}, \frac{m_1y_2 + m_2y_1}{m_1 + m_2}\right)$
- Mid point = $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$
- Centroid of a triangle = $\left(\frac{x_1 + x_2 + x_3}{3}, \frac{y_1 + y_2 + y_3}{3}\right)$



- If line is trisected then take m:n ratio as 1:2 and find co-ordinates of point p(x,y).

Equation of a line

- If two points are given, then Slope (m) = $\frac{y_2 - y_1}{x_2 - x_1}$
- If a point, and slope are given, then Slope (m) = $\frac{y - y_1}{x - x_1}$
- If two lines are 'Parallel' to each other then their slopes are equal i.e $m_1 = m_2$
- If two lines are 'Perpendicular' to each other then product of their slopes is – 1. i.e $m_1 \times m_2 = -1$
- Depending upon the question You may have to use equation od straight line as

a) $y = mx + c$, where 'c' is the y-intercept. OR b) $(y - y_1) = m.(x - x_1)$

Circles, & Tangents.

- Equal chords of a circle are equidistant from the center.(Chord Property)
- The perpendicular drawn from the centre of a circle, bisects the chord of the circle. (Chord Property)
- The angle subtended at the centre by an arc = Double the angle at any part of the circumference of the circle.(Angle Property)
- Angles subtended by the same arc in the same segment are equal. (Angle Property)
- To a circle, If a tangent is drawn and a chord is drawn from the point of contact, then angle made between the chord and the tangent = Angle made in the alternate segment.(Tangent Property)
- The sum of opposite angles of a cyclic quadrilateral is always 180°.

Circumference & Area of a Circle

- Area of a Circle = πr^2.
- Perimeter of a Circle = $2\pi r$
- Area of sector = $\theta/360^\circ(\pi r^2)$
- Length of an arc = $\theta/360^\circ(2\pi r)$
- Area of ring = $\pi.(R^2 - r^2)$
- Distance moved by a wheel in one revolution = Circumference of the wheel.
- Number of revolutions = $\frac{\text{Total distance moved}}{\text{Circumference of the wheel.}}$

Area of an equilateral triangle = $\sqrt{3}/4.(side)^2$.

Note: While solving 'Mensuration' problems, take care of the following.

1. If diameter of a circle is given, then find the radius first
   (Have you made mistake earlier by taking 'd' as 'radius' and solved the problem ?)

2. Check the units of the entire data. If the units are different, then convert them to the same units.
   For Example: Diameter = 14 cm, and Height = 3 m
   Therefore Diameter = 14 cm, and Height = 300 cm (Have you ever committed such mistake ?)

Solids

1. Cylinder: Volume of a cylinder = $\pi r^2 h$
Curved surface area = $2 \pi r h$
Total surface area = $2 \pi r h + 2\pi r^2 = 2 \pi r (h + r)$
Volume of hollow cylinder = $\pi R^2 h - \pi r^2 h = \pi (R^2 - r^2) h$
TSA of hollow cylinder = Outer CSA + Inner CSA + 2 · Area of ring.
$2 \pi R h + 2 \pi r h + 2 \cdot [\pi R^2 - \pi r^2]$
(Of course, If you want, you may take 2π 'common')

2. Cone: Volume of a Cone = $\frac{1}{3} \pi r^2 h$.
CSA of a Cone = $\pi r \ell$ (Here 'ℓ' refers to 'Slant height') [where $\ell = \sqrt{(h^2 + r^2)}$]
TSA of a Cone = $\pi r \ell + \pi r^2 = \pi r (\ell + r)$

3. Sphere: Surface area of a Sphere = $4\pi r^2$. (In case of Sphere, CSA = TSA i.e they are same)
Volume of hemi sphere = $\frac{2}{3} \pi r^3$ [Take half the volume of a sphere]
CSA of hemisphere = $2 \pi r^2$ [Take half the SA of a sphere]
TSA of hemisphere = $2 \pi r^2 + \pi r^2 = 3 \pi r^2$

Volume of a Sphere = $\frac{4}{3} \pi r^3$

Volume of spherical shell = Outer volume – Inner volume = $4/3.\pi.(R^3 - r^3)$

While solving the problems based on combination of solids it would be better if you take common.

- T.S.A. of combined solid = C.S.A of solid 1 + C.S.A of solid 2 + C.S.A of solid 3
- If a solid is melted and, recast into number of other small solids, then
  Volume of the larger solid = No of small solids x Volume of the smaller solid
  For Ex: A cylinder is melted and cast into smaller spheres. Find the number of spheres
  Volume of Cylinder = No of sphere x Volume of sphere.
- If an 'Ice cream cone with hemispherical top' is given then you have to take
  a) Total Volume = Volume of Cone + Volume of Hemisphere
  b) Surface area = CSA of Cone + CSA of hemisphere (usually Surface area will not be asked)

Trigonometric Identities

- Wherever 'Square' appears think of using the identities

(i) $\sin^2 \theta + \cos^2 \theta = 1$ (ii) $\sec^2 \theta - \tan^2 \theta = 1$ (iii) $\text{Cosec}^2\theta - \cot^2 \theta = 1$

- Try to convert all the values of the given problem in terms of Sin θ and Cos θ
- Cosec θ may be written as 1/Sin θ — Sin θ. Cosec θ = 1
- Sec θ may be written as 1/Cos θ — Cos θ. Sec θ = 1
- Cot θ may be written as 1/Tan θ — Tan θ. Cot θ = 1
- Tan θ may be written as Sin θ / Cos θ — Cot θ = Cos θ / Sin θ
- Wherever fractional parts appears then think taking their 'LCM'
- Think of using $(a + b)^2$, $(a - b)^2$, $(a + b)^3$, $(a - b)^3$ formulae etc.,
- Rationalize the denominator [If a + b, (or) a – b format is given in the denominator]
- If you are not able to solve the LHS part completely, Do the problem to such an extent you can solve, then start working with RHS, and finally you will end up at a step where LHS = RHS
- $\sin(90 - \theta) = \cos\theta$: $\cos(90 - \theta) = \sin\theta$.
- $\sec(90 - \theta) = \text{Cosec}\,\theta$: $\text{Cosec}(90 - \theta) = \sec\theta$
- $\tan(90 - \theta) = \cot\theta$: $\cot(90 - \theta) = \tan\theta$

- If you are not able to solve the LHS part completely, Do the problem to such an extent you can solve, then start working with RHS, and finally you will end up at a step where LHS = RHS
- Sin (90 – θ) = Cos θ : Cos (90 – θ) = Sin θ.
- Sec(90 – θ) = Cosec θ : Cosec (90 – θ) = Sec θ
- Tan (90 – θ) = Cot θ : Cot (90 – θ) = Tan θ

Values of Trigonometric Identities :

	0°	30°	45°	60°	90°
Sin θ	0	1/2	$1/\sqrt{2}$	$\sqrt{3}/2$	1
Cos θ	1	$\sqrt{3}/2$	$1/\sqrt{2}$	1/2	0
Tan θ	0	$1/\sqrt{3}$	1	$\sqrt{3}$	∞

Graphical Representation

- Don't forget to write the scale on x-axis, and on y-axis.
- To find the 'Lower quartile' take N/4 [Here N is ∑ f] then take the corresponding point on X-axis
- To find the 'Upper quartile' take 3N/4, then take the corresponding point on X-axis
- To find the 'Median' take N/2, then take the corresponding point on X-axis

Measures of Central Tendency

For un-grouped data

- Arithmetic Mean = $\frac{\text{Sum of observations}}{\text{No of observations}}$
- Mode = The most frequently occurred value of the raw data.
- To find the Median first of all arrange the data in 'Ascending' or 'Descending' order, then
  Median = (N+1)/2 term value of the given data, in case of the data is having odd no of observations.
  Median = [(N/2) + (N+1)/2)] / 2 term value of the given data, in case of the data is having even number of observations.

For grouped data

Arithmetic Mean = $\frac{\sum fx}{\sum f}$ (Direct method) Arithmetic Mean = $a + \frac{\sum fd}{\sum f}$ (short cut method)

Arithmetic Mean = $a + \frac{\sum fu}{\sum f} \times C$ (where C is class interval) (step-deviation method)

Probability

Probability of an event : P(event) = $\frac{\text{Number of favorable outcomes}}{\text{Total number of outcomes}}$

If probability of happening an event is x then probability of not happening that event is (1-x).
For e.g. If probability of winning a game is 0.4 then probability of loosing it is (1-0.4) = 0.6
If probability of finding a defective bulb is 3/7 then probability of finding a non-defective bulb is (1-3/7) = 4/7.
In a deck of playing cards, there are four types of cards :
♠ (Spades in Black colour) having A, 2,3,4,5,6,7,8,9,10,J,K, and Q total 13 cards
♣ (Clubs in Black colour) having A, 2,3,4,5,6,7,8,9,10,J,K, and Q total 13 cards
♥ (Hearts in Red colour) having A, 2,3,4,5,6,7,8,9,10,J,K, and Q total 13 cards
♦ (Diamond in Red colour) having A, 2,3,4,5,6,7,8,9,10,J,K, and Q total 13 cards
52 cards

- Jack, King and Queen are known as 'Face Cards' , As these cards are having some pictures on it. Always remember **Ace is not a face card** as it doesn't carry any face on it.
- If one coin is tossed the total number of outcomes are 2 either a Head or a Tail.
- If two coins are tossed the total number of outcomes are 2 ×2 = 4
- If three coins are tossed the total number of outcomes are 2 ×2×2 = 8
- Similarly for Dice, In a single roll total number of outcomes are 6
- If two Dices are rolled, total number of outcomes are 6×6 = 36

www.infinityvision.in

INFINITY VISION
RE–IMAGINING EDUCATION

ADMISSION OPEN

Get upto 100% Scholarship through our Scholarship Test

IIT-JEE | Medical | NTSE | Olympiads | KVPY

Class 8 | Class 9 | Class 10 | Class 11 | Class 12

HIGHLIGHTS

- Avail upto 100% Scholarship
- Study with the best of IITian faculty
- Integrated courses for board exam and competitive exams
- Online Test Series & Video Classes
- Most of our students score 10 CGPA in board exam
- Interesting and engaging study material

OUR PREVIOUS RESULTS

- **1 out of every 3** students selected in JEE Mains from CBSE UDAAN classes. Total selection 114 from 349.
- 15 out of 24 selected from school integrated program in JEE Main & 4 out of 15 in JEE Advanced.

To learn from our teachers visit "CBSE UDAAN" channel on youtube or visit
https://www.infinityvision.in/videos

STUDY CENTRES

Infinity Vision, C-7, 2nd Floor, Above ICICI Bank, Sec -13 Market, Vasundhara, Ghaziabad, 201012

Infinity Vision, C-65, Ist Floor, RDC, Rajnagar, Ghaziabad, U.P. 201001

☎ **7042433991, 7042220403, 7042433669**

helpdesk.infinityvision@gmail.com