



Padalsalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- Padalsalai's NEWS - Group
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA
- Padalsalai's Channel - Group
<https://t.me/padasalaichannel>
- Lesson Plan - Group
<https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw>
- 12th Standard - Group
https://t.me/Padalsalai_12th
- 11th Standard - Group
https://t.me/Padalsalai_11th
- 10th Standard - Group
https://t.me/Padalsalai_10th
- 9th Standard - Group
https://t.me/Padalsalai_9th
- 6th to 8th Standard - Group
https://t.me/Padalsalai_6to8
- 1st to 5th Standard - Group
https://t.me/Padalsalai_1to5
- TET - Group
https://t.me/Padalsalai_TET
- PGTRB - Group
https://t.me/Padalsalai_PGTRB
- TNPSC - Group
https://t.me/Padalsalai_TNPSC

VETRI TUTION CENTER

THIRUVERKADU, CHENNAI-77



**10 STD
MATHEMATICS
MINIMUM LEVEL STUDY
MATERIAL
2019-2020**

Organization By

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MR

UNIT - 2: NUMBERS AND SEQUENCES

1	Euclid's Division Algorithm	
2	The terms of an AP (General form)	
3	To find n^{th} term of an Arithmetic Progression (AP)	
4	To find the Number of terms	
5	Common difference	
6	Sum of n terms of a A.P.	
7	3 Consecutive terms of an AP	
8	The terms of a GP (General form)	
9	To find n^{th} terms of a Geometric Progression (G.P.)	
10	Common ratio :	
11	Sum of n terms of a G.P.	
12	3 Consecutive terms of a GP	
13	Sum of infinite terms of a G.P.	
14	Sum of first n natural numbers	
15	Sum of squares of first n natural numbers	
16	Sum of cubes of first n natural numbers	
17	Sum of first n odd numbers.	

UNIT - 3 : ALGEBRA

1	Relationship between LCM and HCF	
2	General form of Quadratic Equation	
3	To find the roots of Quadratic Equations	
4	Nature of roots	
	If, $\Delta > 0$	
	If, $\Delta = 0$	
	If, $\Delta < 0$	
5	The relation between Roots and coefficients of a Quadratic Equation	
6	$\alpha^2 + \beta^2$	
7	$(\alpha - \beta)^2$	
8	$\alpha^3 + \beta^3$	
9	$\alpha^3 - \beta^3$	
10	$\alpha^4 + \beta^4$	

UNIT 4 - GEOMETRY

1	Basic Proportionality Theorem (BPT) (or) Thales Theorem	
2	Angle Bisector Theorem	
3	Pythagoras Theorem	
4	Ceva's Theroem	

UNIT 5 - CO-ORDINATE GEOMETRY

1	Distance between two points	
2	Midpoint	
3	Centroid of a triangle	
4	Section Formula (Internal Division)	
5	Section Formula (External Division)	
6	Area of Triangle	
7	Area of Quadrilateral	
	Formulas for find Slope	
8	If two points given	
9	If angle is given	
10	If equation of a straight line is given	
11	If two lines are Parallel	
12	If two lines are Perpendicular	
13	Equation of a straight line parallel to X axis	
14	Equation of a straight line parallel to Y axis	
15	Equation of a straight line which is parallel to the straight line $ax + by + c = 0$	
16	Equation of a straight line which is perpendicular to the straight line $ax+by+c=0$	

EQUATIONS OF A STRAIGHT LINE

17	Slope - Intercept form	
18	Point - Slope form	
19	Two point form	
20	Intercept form	

UNIT 6 - TRIGONOMETRY

$\sin \theta =$	$\operatorname{cosec} \theta =$	$\sin (90 - \theta) =$	$\cos (90 - \theta) =$
$\cos \theta =$	$\sec \theta =$	$\operatorname{cosec} (90 - \theta) =$	$\sec (90 - \theta) =$
$\tan \theta =$	$\cot \theta =$	$\tan (90 - \theta) =$	$\cot (90 - \theta) =$

	$\sin^2 \theta + \cos^2 \theta =$	
	$1 + \tan^2 \theta =$	
	$1 + \cot^2 \theta =$	

TRIGONOMETRIC TABLE:

θ	0°	30°	45°	60°	90°
$\sin \theta$					
$\cos \theta$					
$\tan \theta$					
$\operatorname{cosec} \theta$					
$\sec \theta$					
$\cot \theta$					

UNIT 7 - MENSURATION

	CYLINDER		
1	CSA of a Cylinder		
2	TSA of a Cylinder		
3	Volume of a Cylinder		
	HOLLOW CYLINDER		
4	CSA of a Hollow Cylinder		
5	TSA of a Hollow Cylinder		
6	Volume of a Hollow Cylinder		
	CONE		
7	CSA of a cone		
8	TSA of a Cone		
9	Volume of a Cone Slant Height of Cone		
	FRUSTUM		
10	CSA of a Frustum		
11	TSA of a Frustum		
12	Volume of a Frustum Slant Height of Frustum		
	SPHERE		
13	CSA of a Sphere		
14	TSA of a Sphere		
15	Volume of a Sphere		

		HOLLOW SPHERE	
16	CSA of a Hollow sphere		
17	TSA of a Hollow sphere		
18	Volume of a Hollow sphere		
		HEMISPHERE	
19	CSA of a Hemisphere		
20	TSA of a Hemisphere		
21	Volume of a Hemisphere		
		HOLLOW HEMISPHERE	
22	CSA of a Hollow Hemisphere		
23	TSA of a Hollow Hemisphere		
24	Volume of a Hollow Hemisphere		
		CUBE	
25	LSA of a Cube		
26	TSA of a Cube		
27	Volume of a Cube		
		CUBOID	
28	LSA of a Cube		
29	TSA of a Cube		
30	Volume of a Cube		

UNIT - 8 : STATISTICS AND PROBABILITY

1	Mean	
2	Range	
3	Coefficient of Range	
	Standard Deviation (Ungrouped Data)	
4	Direct Method	
5	Mean Method	
6	Assumed Mean Method	
7	Step Deviation Method	
	Standard Deviation (Grouped Data)	
8	Direct Method	
9	Assumed Mean Method	
10	Step Deviation Method	
11	Standard Deviation of first n natural numbers	
12	Coefficient of Variation	