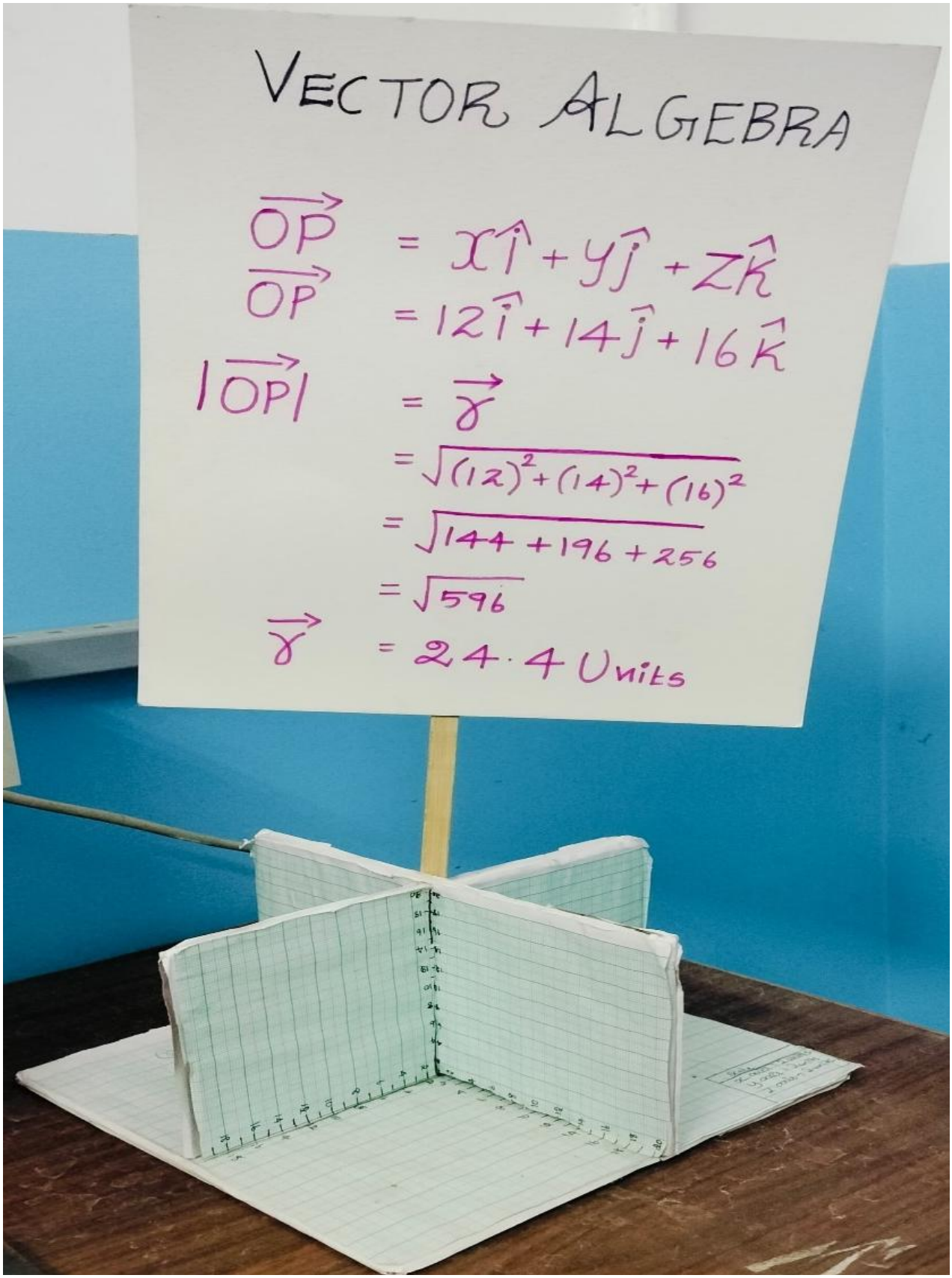
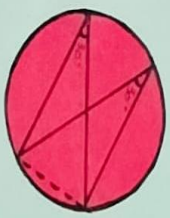
KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)

DEPARTMENT OF MATHEMATICS

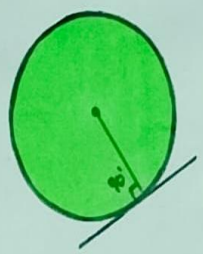
ACTIVITIES CONDUCTED UNDER DBT STAR COLLEGE SCHEME- 2023-2024 MODELS


VECTOR ALGEBRA
$\overrightarrow{OP} = x\hat{i} + y\hat{j} + z\hat{k}$
$\overrightarrow{OP} = 12\hat{i} + 14\hat{j} + 16\hat{k}$
$|\overrightarrow{OP}| = \vec{\gamma}$
$= \sqrt{(12)^2 + (14)^2 + (16)^2}$
$= \sqrt{144 + 196 + 256}$
$= \sqrt{596}$
$\vec{\gamma} = 24.4$ Units

CIRCLE THEOREMS



Angles in the same segment are equal



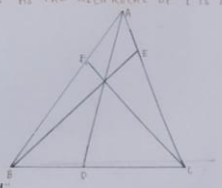
The Angle between a tangent and a radius is 90°

CEVA'S AND MENELAUS THEOREMS

CEVA'S THEOREM

STATEMENT:

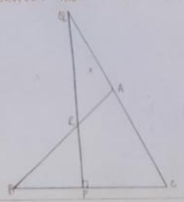
LET ABC BE A TRIANGLE AND LET D,E,F BE POINTS ON LINES BC, CA, AB RESPECTIVELY. THEN THE CEVIANS AD, BE, CF ARE CONCURRENT IF AND ONLY IF $\frac{BD}{DC} \times \frac{CE}{EA} \times \frac{AF}{FB} = 1$. WHERE THE LENGTHS ARE DIRECTED. THIS ALSO WORKS FOR THE RECIPROCAL OF EACH OF THE RATIOS AS THE RECIPROCAL OF 1 IS 1.



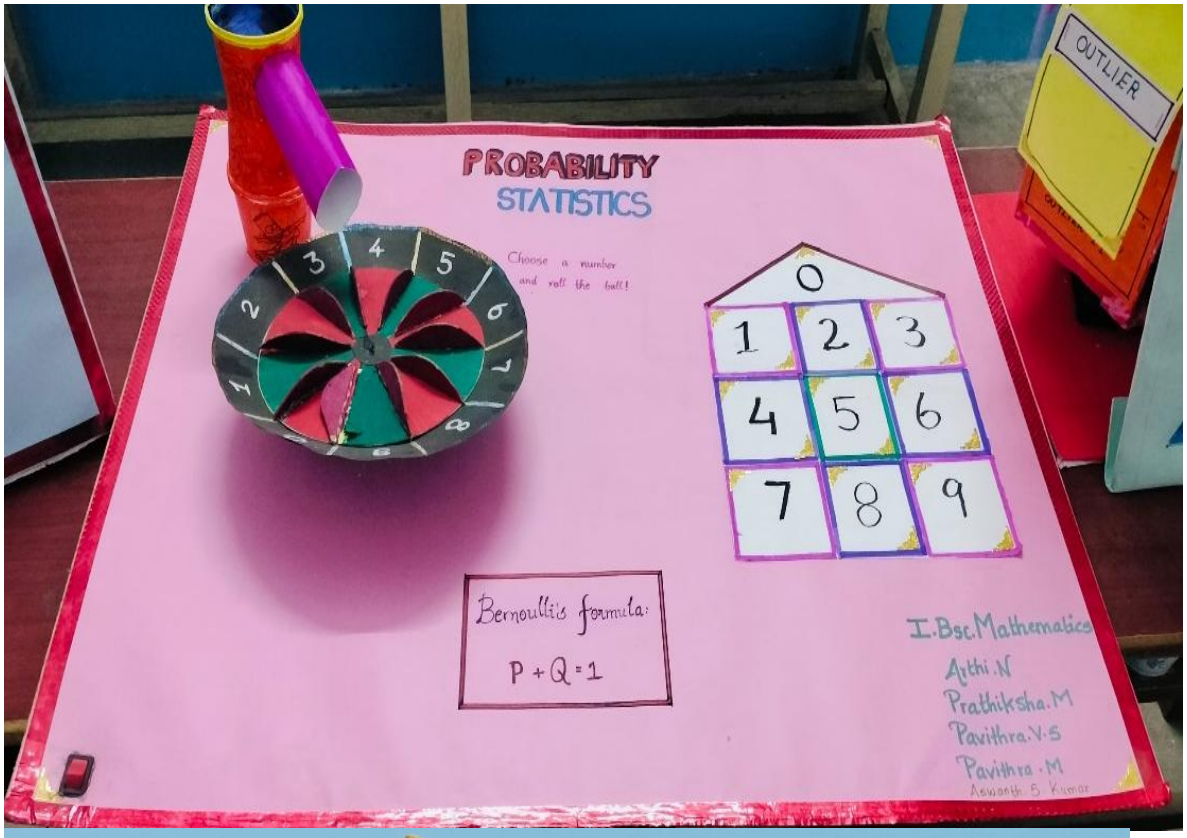
MENELAUS THEOREM

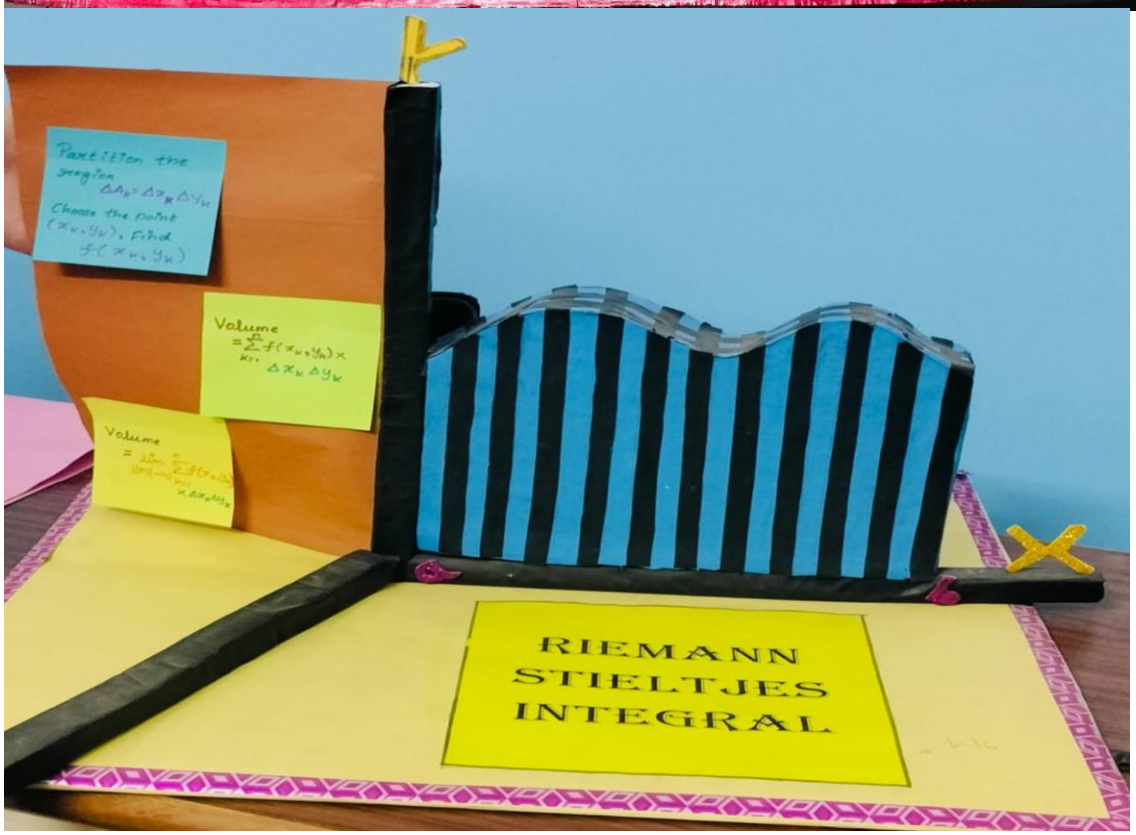
STATEMENT:

A NECCESSARY AND SUFFICIENT CONDITION OF POINTS P,Q,R ON THE RESPECTIVE SIDES BC, CA, AB OF A TRIANGLE ABC TO BE COLLINEAR IS THAT $\frac{BP}{PC} \times \frac{CQ}{QA} \times \frac{AR}{RB} = -1$. WHERE ALL SEGMENTS IN THE FORMULA ARE DIRECTED SEGMENTS.

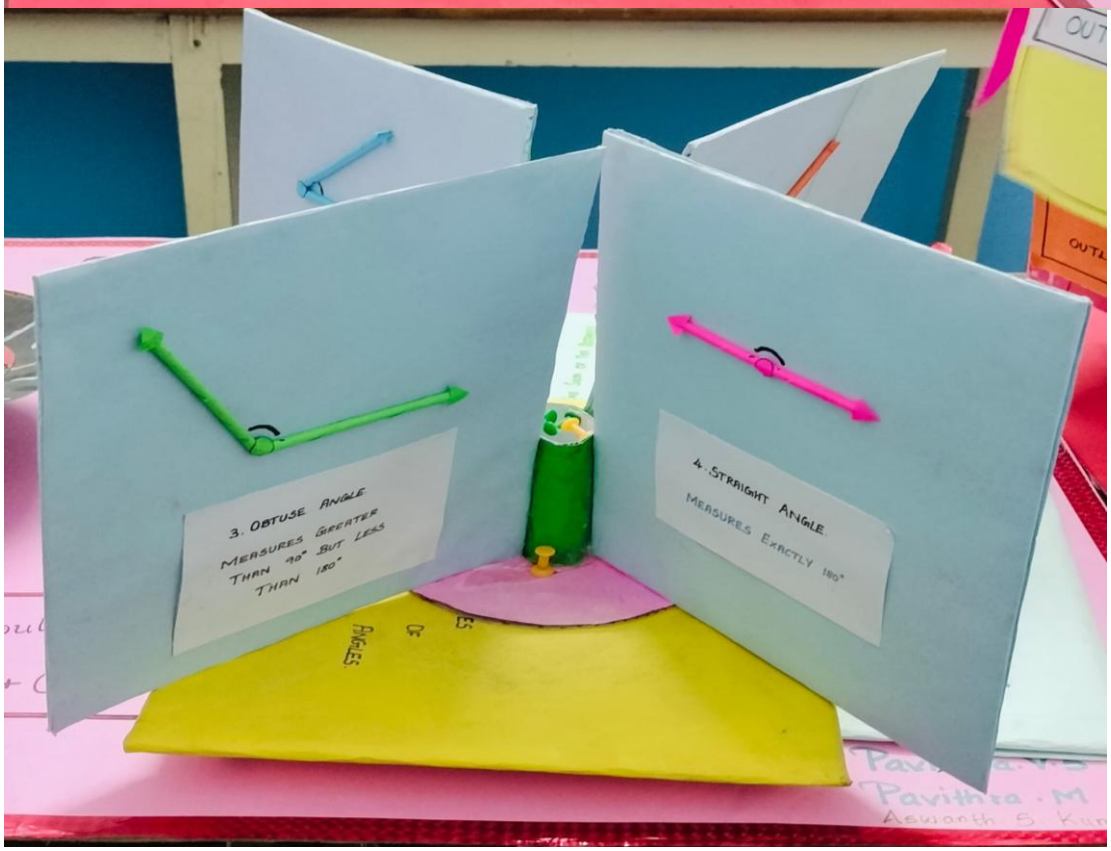


M.
KARTHIKEYAN. M [221MA029]
II BSC MATHEMATICS.

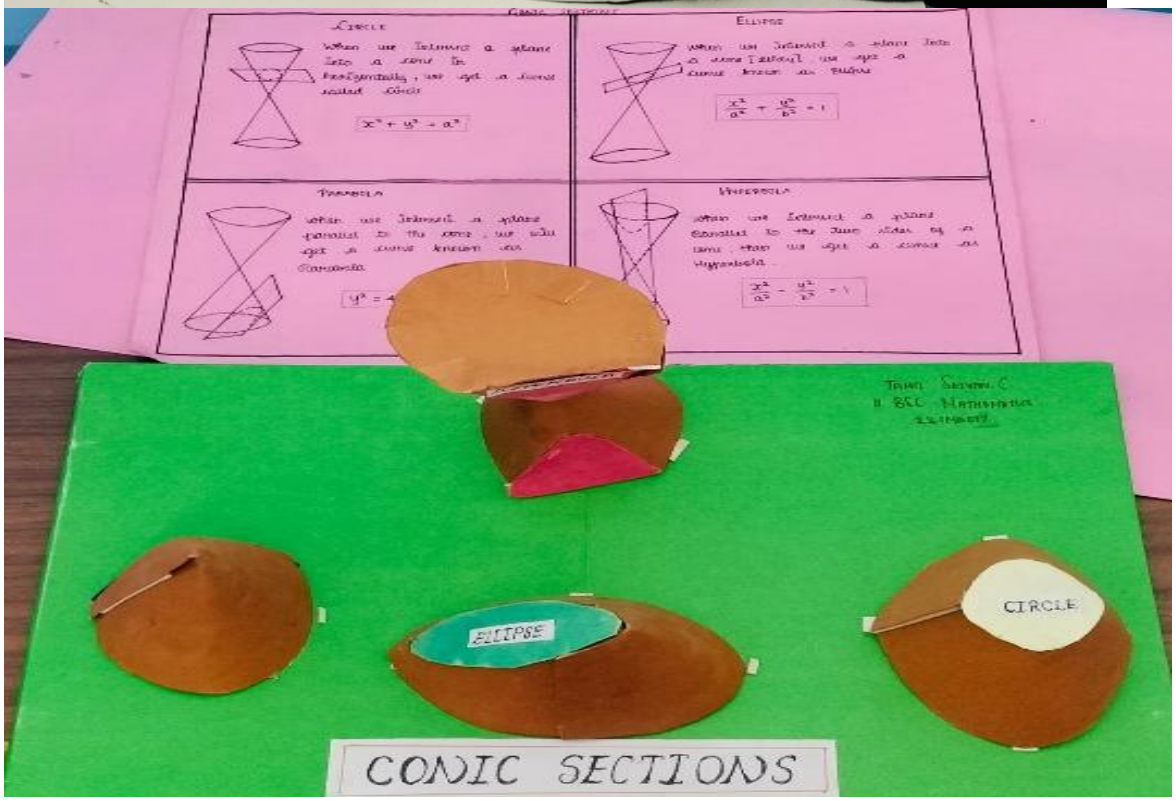

PROBABILITY
STATISTICS
Choose a number and roll the ball!
0
1 2 3
4 5 6
7 8 9
OUTLIER
Bernoulli's formula:
P + Q = 1
I.Bsc.Mathematics
Aathi.N
Prathiksha.M
Pavithra.V.S
Pavithra.M


Partition the region
Choose the point
Volume
Volume
RIEMANN
STIELTJES
INTEGRAL

MEAN
MODE
MEAN =
MODE = 2


3. OBTUSE ANGLE
MEASURES GREATER THAN 90° BUT LESS THAN 180°
4. STRAIGHT ANGLE
MEASURES EXACTLY 180°
ANGLES

CIRCLE THEOREM


CIRCLE
ELLIPSE
PARABOLA
HYPERBOLA
ELLIPSE
CIRCLE
CONIC SECTIONS