

CHAPTER	FORMULA NAME	FORMULA
Triangles	BPT	$AD/DB = AE/EC$
-	Pythagoras Theorem	$A^2 + B^2 = C^2$
-	Ratio in similar triangles	$AB:DE = (\triangle ABC: \triangle DEF)^2$
Coordinate Geometry	Distance formula	$\sqrt{[(x_2 - x_1)^2 + (y_2 - y_1)^2]}$
-	The distance of a point from origin	$\sqrt{(x^2 + y^2)}$
-	Section formula	$(m_1x_2 + m_2x_1)/(m_1 + m_2), (m_1y_2 + m_2y_1)/(m_1 + m_2)$
-	Mid-point Formula	$(x_1 + x_2)/2, (y_1 + y_2)/2$
Probability	Probability of an event	No. of favourable outcomes/No. of all outcomes
-	Probability relation	$0 \leq P(E) \leq 1$
-	Probability relation 2	$P(E) + P(\text{not } E) = 1$
Polynomials	Sum of zeroes	$\alpha + \beta = -b/a$
-	Product of zeroes	$\alpha\beta = c/a$
-	Division algorithm	$p(x) = g(x)q(x) + r(x)$
Areas related to Circles	Circumference of a circle	$2\pi r$
-	Area of a circle	πr^2
-	Length of an arc of a sector	$\theta/360 \times 2\pi r$
-	Area of a sector	$\theta/360 \times \pi r^2$
-	Area of segment of a circle	Area of the corresponding sector – Area of the corresponding triangle
Real numbers	Terminating decimal expansion	If denominator in form of $2^n \times 5^m$
-	Relation of LCM & HCF	$LCM(x,y) \times HCF(x,y) = x \times y$
-	LCM`	Product of the greatest power of each prime factor, involved in the numbers.
-	HCF	Product of the smallest power of each common prime factor in the numbers.
PLETV	Consistent pair (Coincident lines)	$a_1/a_2 = b_1/b_2 = c_1/c_2$

-	Consistent pair (Intersecting lines)	$a_1/a_2 \neq b_1/b_2$
-	Inconsistent Pair (parallel lines)	$a_1/a_2 = b_1/b_2 \neq c_1/c_2$
-	Cross multiplication formula	$x/b_1c_2 - b_2c_1 = y/c_1a_2 - c_2a_1 = 1/b_2a_1 - b_1a_2$
Trigonometry	sinA	opp.side / hypotenuse
-	cosA	adjacent side / hypotenuse
-	tanA	opp.side / adjacent side
-	cosecA	$1/\sin A$
-	secA	$1/\cos A$
-	cotA	$1/\tan A$
-	Super Hexagon	Click here
-	Trigonometric Table	Click here
-	Relation 1	$\sin(90^\circ - A) = \cos A$
-	Relation 2	$\tan(90^\circ - A) = \cot A$
-	Relation 3	$\sec(90^\circ - A) = \csc A$
-	Identity 1	$\sin^2 A + \cos^2 A = 1$
-	Identity 2	$\sec^2 A - \tan^2 A = 1$
-	Identity 3	$\csc^2 A = 1 + \cot^2 A$