BASIC MATHS FORMULAS

FOR ALL EXAMS

Algebraic formulas

1.	$a^2 - b^2 = (a - b)(a + b)$
2.	$a^2 + b^2 = (a + b)^2 - 2ab$
3.	$(a + b)^2 = a^2 + b^2 + 2ab$
4.	$(a - b)^2 = a^2 + b^2 - 2ab$
5.	$(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$
6.	$(a - b - c)^2 = a^2 + b^2 + c^2 - 2ab + 2bc - 2ca$

7.	$(a + b)^3 = a^3 + b^3 + 3a^2b + 3ab^2$
8.	$(a - b)^3 = a^3 - b^3 - 3a^2b + 3ab^2$
9.	$a^3 - b^3 = (a - b)(a^2 + ab + b^2)$
10.	$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$
11.	$(a + b)^4 = a^4 + b^4 + 4a^3b + 6a^2b^2 + 4ab^3$
12.	$(a - b)^4 = a^4 + b^4 - 4a^3b + 6a^2b^2 - 4ab^3$