Delhi Public School, Jammu

Topics : Polynomials and Heron'sformula

Class : IX Sub: Maths

Q1.If ax^3+bx^2+x-6 has x+2 as a factor and remainder 4 when divided by (x-2) . Find the values of 'a' and 'b'.

Q2.If a+b+c = 9, ab+bc+ca = 40 , find $a^2+b^2+c^2$.

Q3.Find the area of rhombus whose perimeter is 80m and one of whose diagonal is 24m.

Q4.If two parallel sides of a trapezium are 60cm and 77cm and other two sides are 25cm and 26cm, find the area of trapezium.

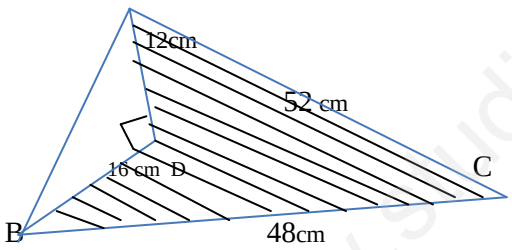
Q5.Find the percentage increase in the area of a triangle if its each side is doubled.

Q6.Let R_1 and R_2 are the remainders when the polynomials $x^3+ 2x^2 -5ax-7$ and $x^3+ax^2-12x+6$ are divided by x+1 and x-2 respectively. If $2R_1+R_2=6$, find the value of 'a'.

Q7.Factorise: $2x^3 - 3x^2 - 17x + 30$.

Q8.If the sides of a triangle are in the ratio 3 : 4 : 5 and its perimeter is 144cm.Find the area of triangle and height to the longest side.

Q9.



Find the area of the shaded region if AD=12cm , AC=52 cm , BC= 48 cm , BD= 16cm and ADB is a right angled triangle.

Q10.Find the value of $64x^3 -125z^3$,if 4x – 5z=16 and xz =12.