

## CLASS X

## MATHS

1. Solve by factorization $a .4 x^{2}-4 a^{2} x+\left(a^{4}-b^{4}\right)=0$
2. The sum of areas of two squares is $468 \mathrm{~m}^{2}$ If the difference of their perimeters is 24 cm , find the sides of the two squares.
3. Find the positive value of $k$ for which $x^{2}+K x+64=0 \& x^{2}-8 x+k=0$ will have real roots.
4. By completing square method solve for $x: 4 x^{2}+4 \sqrt{3} x+3=0$
5. The fourth term of an AP is 0 . Prove that its $25^{\text {th }}$ term is triple its $11^{\text {th }}$ term.
6. A man arranges to pay a debt of Rs. 3600 in 40 monthly installments which are in a AP. When 30 installments are paid he dies leaving one third of the debt unpaid. Find the value of the first installment.
7. . Find the middle term of the AP $1,8,15 \ldots . .505$
8. Find the vertices of the triangle, the mid-points of whose sides are $(3,1),(5,6)$ and $(--3,2)$
9. Find the area of the quadrilateral whose vertices taken in order are $(-4,-2)$, $(-3,5),(3,-2)$ and $(2,3)$.

10. $A(4,--8) B(3,6)$ and $C(5,--4)$ are the vertices of a $\triangle A B C$ and $D$ is the midpoint of $B C$ and $P$ is a point on $A D$ joined such that $\frac{A D}{P D}=2$, find the coordinates of $P$.

