Contact: Neeraj Kumar Gupta 0161-4644345, 09888013451,

## Stepping towards Success

First believe that we can.
Maths TEST X Paper 1

1. Find the value of $k$ such that quadratic equation $\boldsymbol{x}^{2}-\mathbf{2 k x}+(\mathbf{7 k - 1 2 )}=\mathbf{0}$ has equal roots.
2. Find the value of $k$ such that quadratic equation $9 x^{2}+8 k x+16=0$ have equal roots.
3. Find the value of $c$ such that quadratic equation $4 x^{2}-2(c+1) x+(c+4)=0$ has realand equal roots.
4. Find the value of $k$ such that quadratic equation $(\mathbf{k}+4) x^{2}-(k+1) x+1=0$ has equal roots.
5. If one root of the equations $\mathbf{3} \boldsymbol{x}^{\mathbf{2}} \mathbf{- k \boldsymbol { k }} \mathbf{- 2} \mathbf{= 0}$ is $\mathbf{2}$, Find the value of k and the other root.
6. If one root of the equations $\mathbf{2 \boldsymbol { x } ^ { 2 }} \mathbf{- k x} \mathbf{- 6} \mathbf{= 0}$ is 2 , Find the value of k and the other root.
7. If -5 be the one root of the equations $2 x^{2}-p x-16=0$ is $\mathcal{2}$ and the quadratic equation $p\left(x^{2}+x\right)=\boldsymbol{k}=\mathbf{0}$ has equal roots, Find the value of $k$ and $p$.
8. Solve for $x: 4 x^{2}-2\left(a^{2}+b^{2}\right) x+a^{2} b^{2}=0$
9. Solve for $x$ : $a b \boldsymbol{x}^{2}+\left(b^{2}-\Delta a c\right)-b c=0$
10. Solve for $\mathrm{x}: \frac{\mathbf{1}}{a+b+\boldsymbol{x}}=\frac{\mathbf{1}}{\boldsymbol{x}}+\frac{\mathbf{1}}{\boldsymbol{b}}+\frac{\mathbf{1}}{\boldsymbol{c}}$
