**Aarambh Classes**

**Class X**

**Maths test**

**Quadratic Equations**

**Time : 1hour M.Marks : 20**

1. A train travels a distance of 480 km at a uniform speed. If the speed had been 8 km/h less ,then it would have taken 3 hours more to cover the same distance .Find the speed of the train.
2. Find the roots of the following quadratic equation by factorisation :

x +7x +5 =0

1. The altitude of a right triangle is 7 cm less than its base .If the hypotenuse is 13 cm ,find the other two sides .
2. Find the value of k for the following quadratic equation ,so that it has two equal roots .

Kx(x-2) +6=0

1. A pole has to be erected at apoint on the boundary of acircular park of diameter 13 metres in such a way that the differences of its distances from two diametrically opposite fixed gates A and B on the boundary is 7 m.Is it possible to do so ?If yes ,at what distances from the wo gates should th epole be erected ?
2. The age of father is equal to the square of the age of his son .The sum of the age of father and five times the age of his son is 66 years .Find their ages .