WORD PROBLEMS : QUADRATICS
(Problems leading to quadratics)

Find a positive number whose square minus one hundred and nineteen equal to ten times the difference between the number and eight.

_____ , _____

A man is five times as old as his son. The sum of the squares of their ages is 2106. What are their ages?

_____ , _____

The sum of the reciprocal of two consecutive whole numbers is $\frac{15}{56}$. What are the numbers ?

_____ , _____

The positive number which when increased by 17 , equals 60 times its reciprocal ?

_____ , _____

A rectangular field has a perimeter of 500yd and an area of 14,400 sq yards. Find its length and width in yards.

_____ , _____

A train would take one hour less to cover 210 miles if it ran 5mph faster . How many hours does the journey currently take ?

_____ , _____

The sum of positive number and its square is nine times the next whole number. Find the number.

_____

Cricket balls costing £5 are bought. If each ball had been 1shilling cheaper , five more balls could have been bought for the same £5. What is the price , in shilling of each ball?

(Remember there are 20 shillling in1pound)

_____

The length of a rectangular table is 7cm more than the width and the diagonal is 1cm more than the length. Find the length and the width of the rectangle.

_____ , _____

Two taps running together can fill a tank in $2\frac{11}{12}$ hours.

The slower tap takes three less than twice the time the faster tap takes to fill the tank.

The time taken by the two taps are :

_____ , _____