QUADRATIC EQUATIONS

1. If one root of the quadratic equation 2x2+px+4=0 is 2, find the second root and the value of p

1 ,-6 1, 6 -1, 6 -1, -6

1. The roots of a2x2-3abx+2b2=0 are

2b/a, -b/a 2 b/a ,b/a -2b/a, -b/a -2b/a, b/a

1. Construct a quadratic equation whose roots have the sum = 6 and product = -16

x2-6x-16=0 x2-6x+16=0 x2+6x-16=0 x2+6x+16=0

1. Find p for which 3x2-5x+p=0 has equal roots

-25/12 25/12 -25/6 25/6

1. Find the condition that the quadratic equation x2-px+q=0, p, q εR has no real root.

P2≤4q p2<4q p2>4q p2=4q

1. X=3 is a solution of the equation 3x2 + (k-1) x + 9=0 if k has the value

13 -13 11 -11

1. The common root of the equation x2-7x+10=0 and x2-10x+16=0 is

-2 3 5 2

1. An equation equivalent to the quadratic equation x2-6x+5=0 is

6x2-5x+1=0 x2-5x+6=0 5x2-6x+1=0 |x-3|=0

1. The roots of the equation ax2+bx+c=0 will be reciprocal if

a=b b=c c=a cannot be determined

1. Form a quadratic equation whose one root is 3-√5

x2-6x+4=0 x2+6x+4=0 x2-6x-4=0 x2+6x+4=0

1. For what value of k the roots α and β of the equation x2-6x+k=0 satisfy the relation 3α+2β=20

8 -8 16 -16

1. If α and β are the roots of x2+kx+12=0 such that α-β=1, then find k

0 ±1 ±5 ±7

1. If α and β are the roots of x2-5x+6=0, construct a quadratic equation whose roots are 1/α , 1/β

6x2+5x+1=0 6x2+5x-1=0 6x2-5x+1=0 6x2-5x-1=0

1. Find two consecutive positive odd integers whose squares have the sum 290

11,13 13,15 9,11 15,11

1. The expression x2-x+1=0 has

One proper linear factor

Two proper linear factors

No proper linear factor

Can not be determin

1. Find the quadratic equation whose roots are reciprocal of the roots of 3x2-20x+17=0

17x2-20x+3=0 17x2+20x+3=0 17x2-20x-3=0 17x2+20x-3=0

1. Find the quadratic equation whose roots are reciprocal of the roots of 17x2-20x+3=0

3x2-20x-17=0 3x2-20x+17=0 3x2+20x+17=0 3x2+20x-17=0

1. Find k such that the sum of the roots of the equation 3x2+(2x+1)x-k-5=0 is equal to the product of roots

4 6 2 8

1. If α and β are the root of the quadratic equation x2-x+1=0, find the value of α3+ β3

1 -1 2 -2

1. If α and β are the root of the quadratic equation x2+x+1=0, find the value of α3+ β3

1 -1 2 -2

1. If α and β are the root of the quadratic equation x2+x+1=0, find the quadratic equation whose roots are α3 and β3

x2 + 2x - 1=0 x2 + 2x + 1=0 x2 - 2x + 1=0 x2 + x - 1=0

1. A cyclist covers a distance of 24 km in a certain time with a certain fixed uniform speed. If he increases his speed by 2km/hour, he takes 2 hours less to cover the same distance. Find his original speed.

6 km/hr 4km/hr 12km/hr 8km/hr

1. If the roots of 2x2- 5x + b=0 are in the ratio 2:3, then the value of b is

3 4 5 6

1. If a and be the roots of the quadratic equation x2 - 9x + 20 = 0, find a2 + b2 + ab

-21 1 21 61

1. Find the value of a/b + b/a if a and b are the roots of the quadratic equation x2 + 8x + 4=0

14 15 24 26