

1	<p>Solve these linear equation in two variable ( x and y)</p> <p>a. <math>37x + 41y = 70</math>  <math>41x + 37y = 86</math></p> <p>b. <math>99x + 101y = 499</math>  <math>101x + 99y = 501</math></p>
2	<p>In a cyclic quadrilateral ABCD, Find the four angles.</p> <p>a. <math>\angle A = (2x + 4)</math>, <math>\angle B = (y + 3)</math>, <math>\angle C = (2y + 10)</math>, <math>\angle D = (4x - 5)</math>.</p> <p>b. <math>\angle A = (2x - 1)</math>, <math>\angle B = (y + 5)</math>, <math>\angle C = (2y + 15)</math> and <math>\angle D = (4x - 7)</math></p>
3	<p>Find the values of a and b for which the following system of linear equations has infinite number of solutions:</p> $2x - 3y = 7$ $(a + b)x - (a + b - 3)y = 4a + b$
4	<p>The father's age is six times his son's age. Four years hence, the age of the father will be four times his son's age. Find the present ages of the son and the father.</p>
5	<p>Rajdhani train covered the distance between Lucknow and Delhi at a uniform speed. It is observed that if rajdhani would have run slower by 10 km/hr, it would have taken 3 hours more to reach the destination and if rajdhani would have run faster by 10 km/hr, it would have taken 2 hours less. Find the distance Lucknow and Delhi?</p>
6	<p>A and B are friends and their ages differ by 2 years. A's father D is twice as old as A and B is twice as old as his sister C. The age of D and C differ by 40 years. Find the ages of A and B.</p>