4 . SECOND DEGREE EQUATIONS - CLASS - 4 - WORKSHEET

1. a) What number is added to $x^2 + 2x$ to get a perfect square ?

   b) The sum of the square of a number and two times of that number gives 288 .

   What are the numbers ?

2. a) What number is added to $x^2 - 8x$ to get a perfect square ?

   b) Eight times a number is subtracted from the square of that number gives 609 .

   What are the numbers ?

3. a) What number is added to $x^2 + 6x$ to get a perfect square ?

   b) One side of a rectangle is 6 centimetres longer than the other side and its area is 247

   square centimetres . What are the lengths of the sides ?

4. a) What number is added to $x^2 - 4x$ to get a perfect square ?

   b) One of the perpendicular sides of a right triangle is 4 centimetres less than the other .

   Area of the triangle is 96 square centimetres . What are the lengths of the

   perpendicular sides of the triangle ?

5. Consider the arithmetic sequence 15 , 13 , 11 , . . .

   a) What is its common difference ?

   b) What is its algebraic form ?

   c) What is the sum of the first n terms of the sequence ?

   d) How many terms of this arithmetic sequence must be added to get 60 ?