

WANDOOR GANITHAM - S S L C UNIT TEST 2021

3.04BE

SECOND DEGREE EQUATIONS

Total Score : 20

Time : 40 minutes

1. a) Which number is to be added to $x^2 - 18x$ to get a perfect square ?
b) Find the natural number value of x from the equation $x^2 - 18x = 144$? (3)
2. 1 added to the product of two consecutive even numbers gives 289 .
a) Write down a second degree equation by taking the smaller number as x
b) What are the numbers ? (3)
3. When each side of a square was decreased by 4 metres , the area became 900 square - metres .
a) Write down a second degree equation by taking the side of the original square as x
b) What was the length of a side of the original square ? (3)
4. 10 times a number subtracted from the square of that number gives 144 .
a) Write down a second degree equation by taking the number as x
b) What is the number ? (3)
5. The shorter side of a rectangle is 6 centimetres less than its longer side . The area of the rectangle is 315 square centimetres .
a) Write down a second degree equation by taking the longer side as x
b) What are the lengths of its the sides ? (4)
6. The perimeter of a rectangle is 28 centimetres and its diagonal is 10 centimetres .
a) What is the sum of the lengths of the longer and the shorter sides of the rectangle ?
b) Write down a second degree equation by taking the length of the longer side as $7 + x$
c) What are the lengths of its the sides ? (4)