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## MATHS

## NCERT - NCERT

## MATHEMATICS(ENGLISH)

## NCERT THEOREMS

## Theorem 11

## 1. Theorem 1.1 (Euclid's Division Lemma) : Given

positive integers $a$ and $b$, there exist unique
integers $q$ and $r$ satisfying $a=b q+r, 0 \leq r \leq$ b.

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## Theorem 12

1. Theorem 1.2 (Fundamental Theorem of

Arithmetic) : Every composite number can be expressed ( factorised) as a product of primes, and this factorisation is unique, apart from the order in which the prime factors occur.

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## Theorem 13

1. Theorem 1.3 : Let p be a prime number. If p
divides $a^{\wedge} 2$, then $p$ divides $a$, where $a$ is $a$ positive integer.

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Theorem 61

1. Sum of the ares of two squares is $544 \mathrm{~m}^{2}$. if the difference of their perimeters is 32 . find the sides of two squares.

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2. Theorem 6.2 : If a line divides any two sides of a triangle in the same ratio, then the line is parallel to the third side.
3. Theorem 6.3 : If in two triangles, corresponding angles are equal, then their corresponding sides are in the same ratio (or proportion) and hence the two triangles are similar.

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4. Theorem 6.4 : If in two triangles, sides of one triangle are proportional to (i.e., in the same ratio of ) the sides of the other triangle,
then their corresponding angles are equal and hence the two triangles are similiar

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5. Theorem 6.5 : If one angle of a triangle is equal to one angle of the other triangle and the sides including these angles are proportional, then the two triangles are similar.
6. Theorem 6.6 : The ratio of the areas of two similar triangles is equal to the square of the ratio of their corresponding sides.

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7. Theorem 6.7 : If a perpendicular is drawn
from the vertex of the right angle of a right triangle to the hypotenuse then triangles on both sides of the perpendicular are similar to the whole triangle and to each other.
8. Theorem 6.8 : In a right triangle, the square of the hypotenuse is equal to the sum of the squares of the other two sides.

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9. Prove that in a triangle, if the square of one side is equal to the sum of the squares of the other two sides, then the angles opposite to the first side is a right angle.

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## Theorem 101

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## 2. about to only mathematics

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