

490. In a right-angled triangle, right-angled at A , if the side AC be double of the side AB , the angle B is more than double of the angle C .

491. Trisect a parallelogram by straight lines drawn through one of its angular points.

492. AHK is an equilateral triangle; $ABCD$ is a rhombus, a side of which is equal to a side of the triangle, and the sides BC and CD of which pass through H and K respectively; shew that the angle A of the rhombus is ten-ninths of a right angle.

493. Trisect a given triangle by straight lines drawn from a given point in one of its sides.

494. In the figure of I. 35 if two diagonals be drawn to the two parallelograms respectively, one from each extremity of the base, and the intersection of the diagonals be joined with the intersection of the sides (or sides produced) in the figure, shew that the joining straight line will bisect the base.

II. 1 to 14.

495. Produce one side of a given triangle so that the rectangle contained by this side and the produced part may be equal to the difference of the squares on the other two sides.

496. Produce a given straight line so that the sum of the squares on the given straight line and on the part produced may be equal to twice the rectangle contained by the whole straight line thus produced and the part produced.

497. Produce a given straight line so that the sum of the squares on the given straight line and on the whole straight line thus produced may be equal to twice the rectangle contained by the whole straight line thus produced and the part produced.

498. Produce a given straight line so that the rectangle contained by the whole straight line thus produced and the part produced may be equal to the square on the given straight line.

499. Describe an isosceles obtuse-angled triangle such that the square on the largest side may be equal to three times the square on either of the equal sides.

500. Find the obtuse angle of a triangle when the

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