

MATHEMATICS

XLV. THE REGULAR TETRAHEDRON IN RELATION O ITS CUBE AND OTHER SOLIDS

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A regular tetrahedron may be made from a cube by cutting off four of its corners with planes, each of which passes through three vertices, the edge, area of base, and volume of the tetrahedron are compared with like parts of the cube from which it is cut, and the radius of the circumscribed sphere is expressed in terms of the edge of the tetrahedron. Models of these solids were exhibited and printed copies of the paper were distributed.

$$Vol. Reg. Tet. = \left(\frac{1}{2}e\sqrt{2}\right)^3 \cdot \frac{1}{6}e^3\sqrt{2} = \frac{1}{12}e^3\sqrt{2} = \frac{1}{12}\sqrt{2}e^3$$

