



Problem of the Week

Problem E

Across the Prism

A trapezoidal prism is a prism in which opposite parallel ends are congruent trapezoids.

For the trapezoidal prism shown, the opposite parallel sides of each trapezoid are 36 cm and 16 cm in length. The non-parallel sides of each trapezoid are 16 cm and 12 cm in length. The prism is 40 cm long. The volume of the prism is 9984 cm^3 .

A body diagonal of a prism is a line connecting two vertices that are not on the same face. Find the length of the body diagonal AB (indicated in the diagram), accurate to 1 decimal place.

