



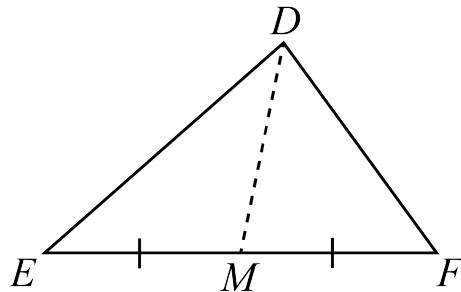
Problem of the Week

Problem C

Three Perimeters

A *median* is a line segment drawn from the vertex of a triangle to the midpoint of the opposite side.

In $\triangle DEF$, a median is drawn from vertex D , meeting side EF at point M .



The perimeter of $\triangle DEF$ is 24. The perimeter of $\triangle DEM$ is 18. The perimeter $\triangle DFM$ is 16. Determine the length of the median DM .