Problem of the Week
Problem D
Medians and Altitudes

A median is a line segment drawn from the vertex of a triangle to the midpoint of the opposite side. An altitude is a line segment drawn from a vertex of a triangle to the opposite side intersecting at 90°.

In $\triangle ABC$, $\angle ACB = 90^\circ$. An altitude is drawn in $\triangle ABC$ from $C$ to $AB$ intersecting at $D$. A median is drawn in $\triangle ADC$ from $A$ meeting $DC$ at $M$. The length of the median $AM$ is 13 and $AD$ is 12.

Determine the length of $BD$. 