On highways, medians are used to separate opposing lanes of traffic on divided highways. Our problem is not interested in that kind of median.

In triangles, a median is a line segment drawn from the vertex of a triangle to the midpoint of the opposite side, separating the triangle into two triangles of equal area.

In \(\triangle ABC\), \(\angle ABC = 90^\circ\). A median is drawn from \(A\) meeting \(BC\) at \(M\) such that \(AM = 5\). A second median is drawn from \(C\) meeting \(AB\) at \(N\) such that \(CN = 2\sqrt{10}\).

Determine the length of the longest side of \(\triangle ABC\).