Problem of the Week #13
2/24/2020 to 3/8/2020

Find all triangles $ABC$ for which $|AB| + |AC| = 2$ and $|AD| + |BC| = \sqrt{5}$, where $AD$ is the altitude through $A$, meeting $BC$ at the point $D$.

Solutions to the last problem were submitted by Phil Boyd (Manchester, England), Adam Cordeiro (Japan), T.J. Gaffney (Las Vegas, NV), Rob Hill (Gambrills, Maryland), Lincoln James (Chicago, IL), Tengiz Kutchava (Georgia, the country), Manuel Guillermo Flota López (México), Yann Michel (Paris, France), Michael Tomaine (Bellevue, WA), Bruno Alfonso Cuevas Villa (México), and Zurab Zakaradze (Georgia, the country).

Solutions for this problem can be submitted to Dr. Brian Miceli at bmiceli@trinity.edu, or you can drop them off at his office, MMH 115F. People who submit solutions will be acknowledged on the next problem. If you like these problems, you may be interested in the Putnam Exam, and more information on the Putnam Exam may be found HERE.