BECA / Dr. Huson / Geometry 06-Analytic-geometry Name:
pset ID: 78

6-12DN-tangent-trig-ratios

1. Express the result to the nearest thousandth.

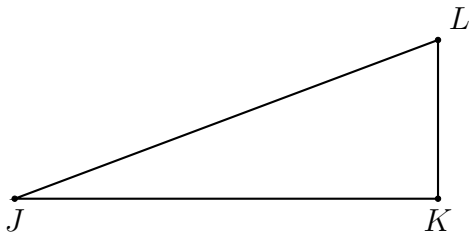
   (a) $\tan 45° =$

   (b) $\tan 58° =$

   (c) $\tan 88° =$

   (d) $\tan 30° =$

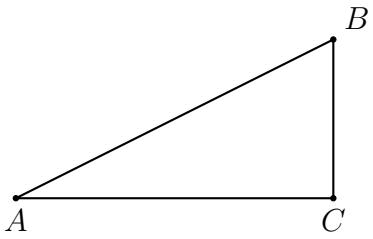
2. Given right $\triangle JKL$ with $\overline{JK} \perp \overline{KL}$, $JK = 10$, $m\angle J = 35°$.



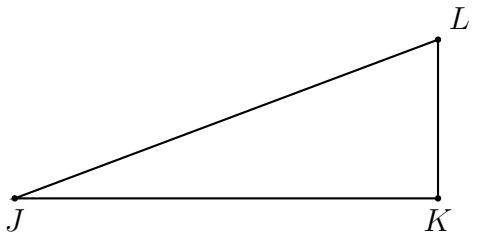
   (a) Use the tangent function to find the length KL

   (b) Use the Pythagorean formula to find the length JL, to the *nearest hundredth.*

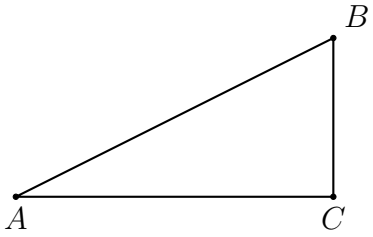
3. Given right $\triangle ABC$ with $AC = 8.2, BC = 5.1$, $m\angle C = 90°$. Find the value of $m\angle A$, expressed as a decimal to the nearest whole number.



4. Given right $\triangle JKL$ with $\overline{JK} \perp \overline{KL}$, $JK = 17$, $m\angle J = 28°$. Find the length KL.



5. Given right $\triangle ABC$ with $AC = 8, BC = 6$, $m\angle C = 90°$. Find the value of $m\angle B$, expressed as a decimal to the nearest thousandth.



6. Spicy: Given a rectangle with area 48, width x, and length $x + 8$.

   (a) Find x.

   (b) Find the perimeter of the rectangle.