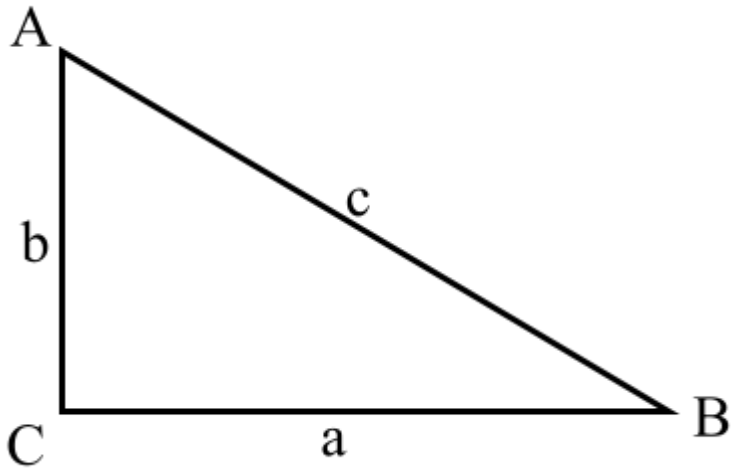
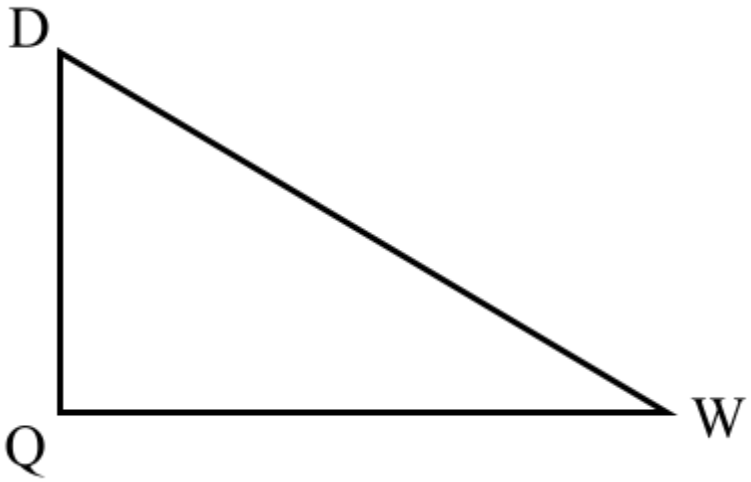
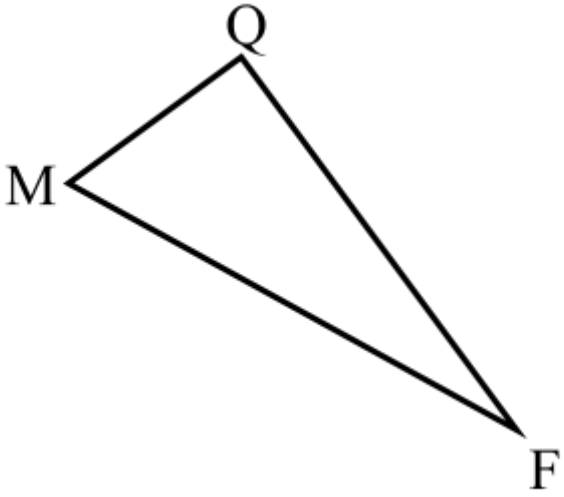
Square Roots and Surface Area
Lesson #5 – Pythagorean Theorem

- Every right triangle has two ***legs*** and one ***hypotenuse***
- The hypotenuse is directly across the triangle from the right angle $\{90^0\}$ and is the longest side in the triangle
- The legs are the two sides of the triangle that form the right angle
- Name sides using a single lower case letter that matches the upper case letter of the angle directly across the triangle
- The ***Pythagorean Theorem***: $a^2+b^2=c^2$



1. Identify the legs and the hypotenuse, then write the Pythagorean theorem as it applies to the triangle shown.





2. Use your calculator and the fraction key to estimate the following roots to the nearest thousandth.

a) $\sqrt{1.22}$

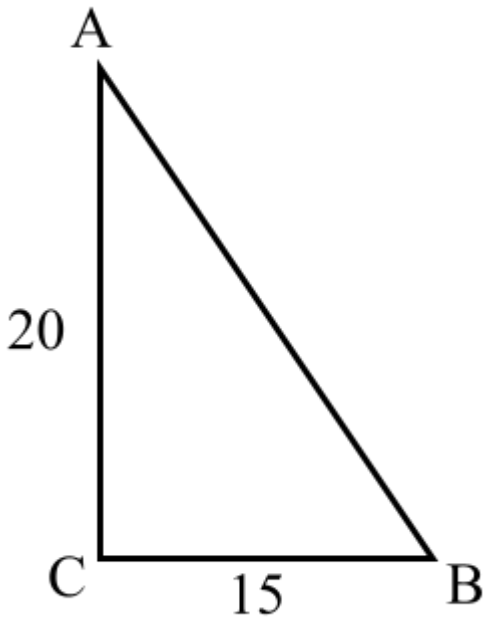
b) $\sqrt{\frac{45}{57}}$

c) $\sqrt{1\frac{3}{19}}$

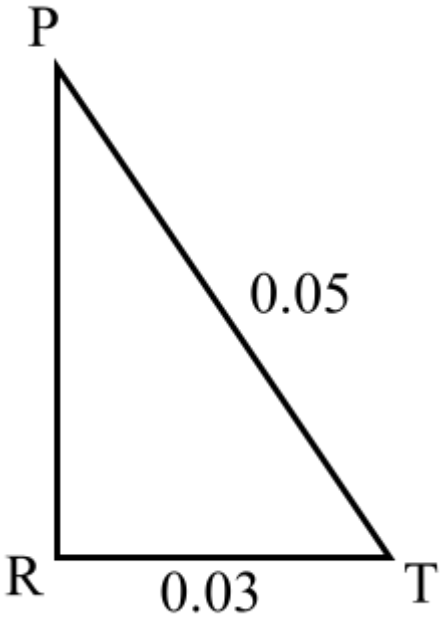
d) $\sqrt{20000}$

3. Use your calculator to solve for the missing side. Do not round your answer.

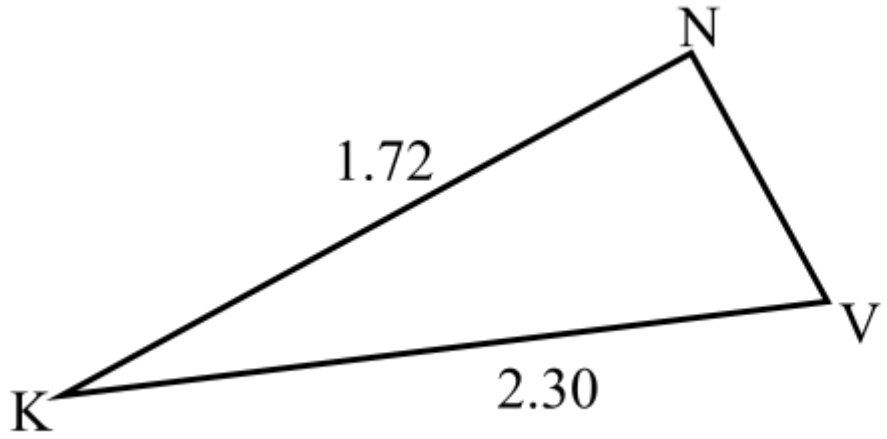
a)



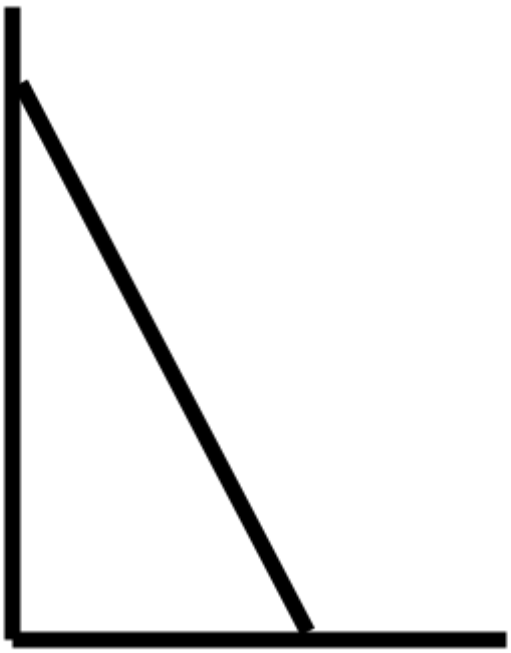
b)



4. Solve for the missing side. Round your answer to the nearest hundredth.



5. A 4.5 m long ladder is leaning against a vertical wall. The foot of the ladder is 1.2 m from the base of the wall. How high up the wall does the ladder reach?



Assignment #5 - all