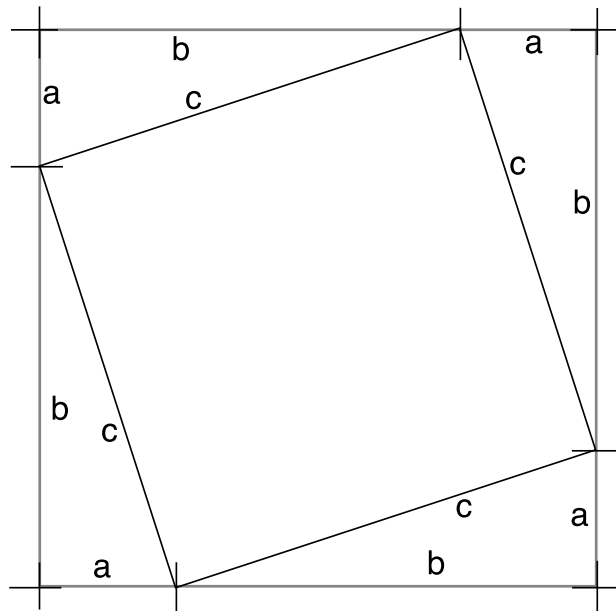
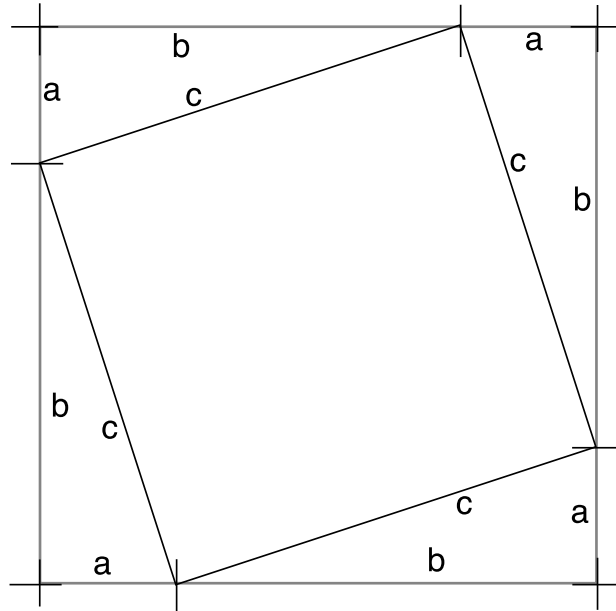
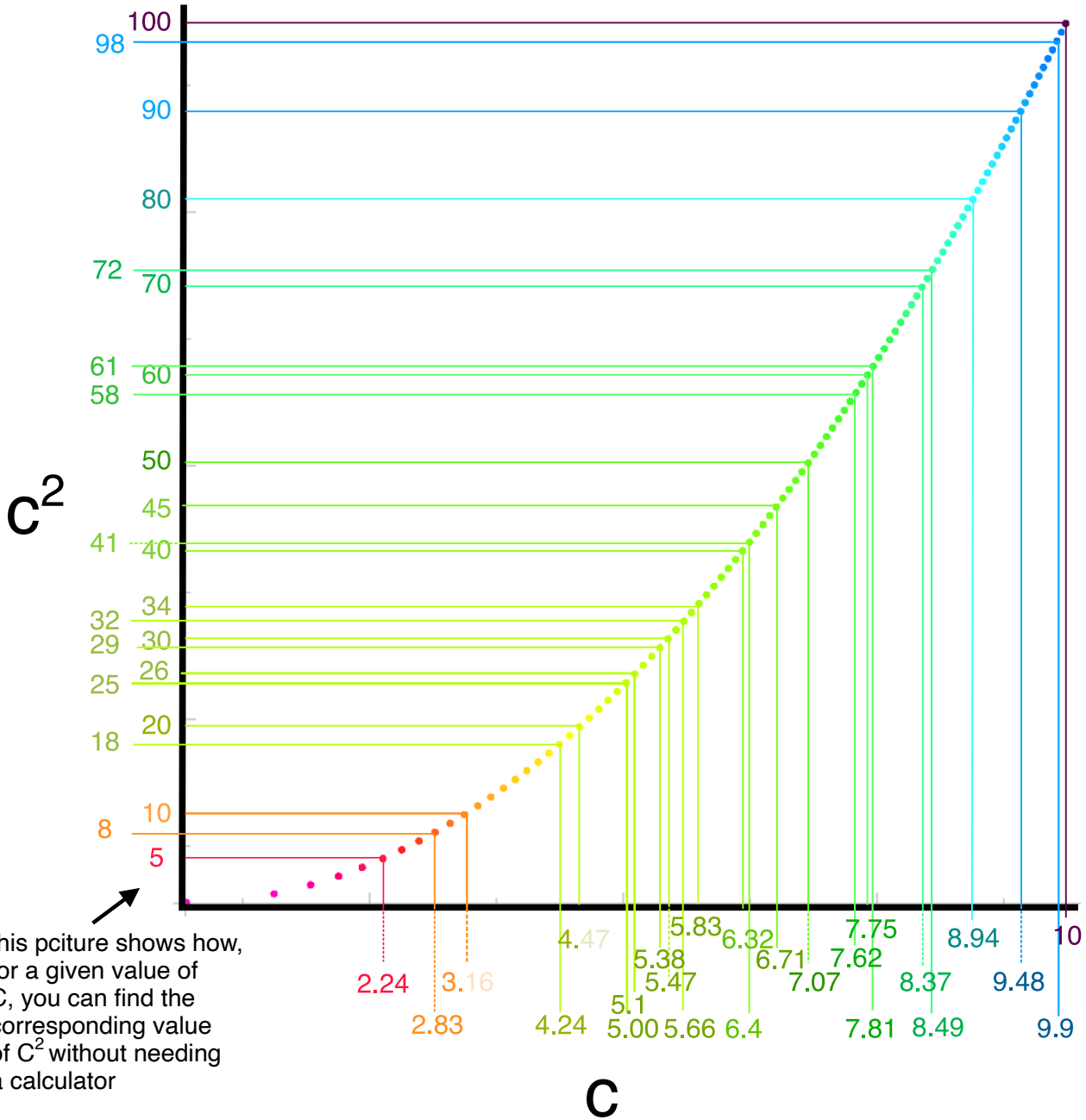


Can you rearrange the triangles to demonstrate the pythagorean theorem?
 (feel free to make liberal use of scissors, and colored pencils)



Can you derive the pythagorean theorem using this kind of spatial reasoning?

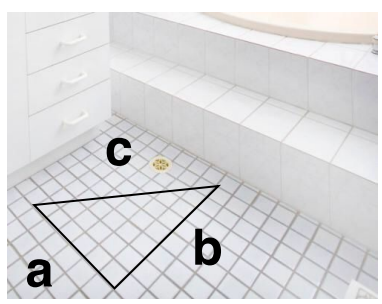
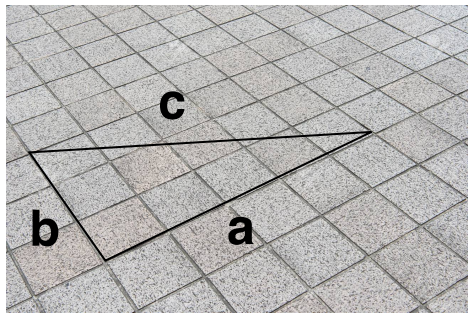
I.e. can you prove that the theorem always works, not just for these particular triangles

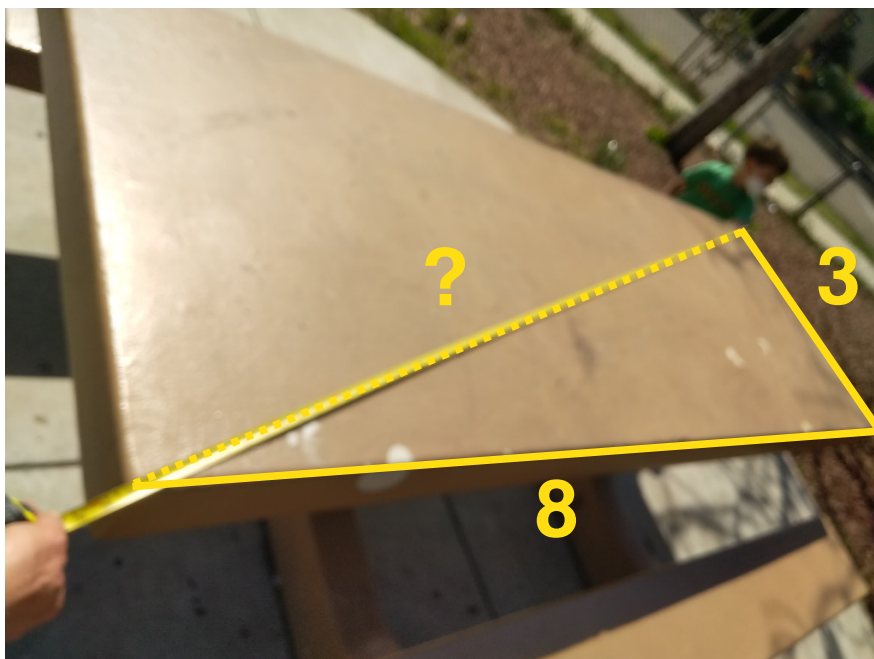
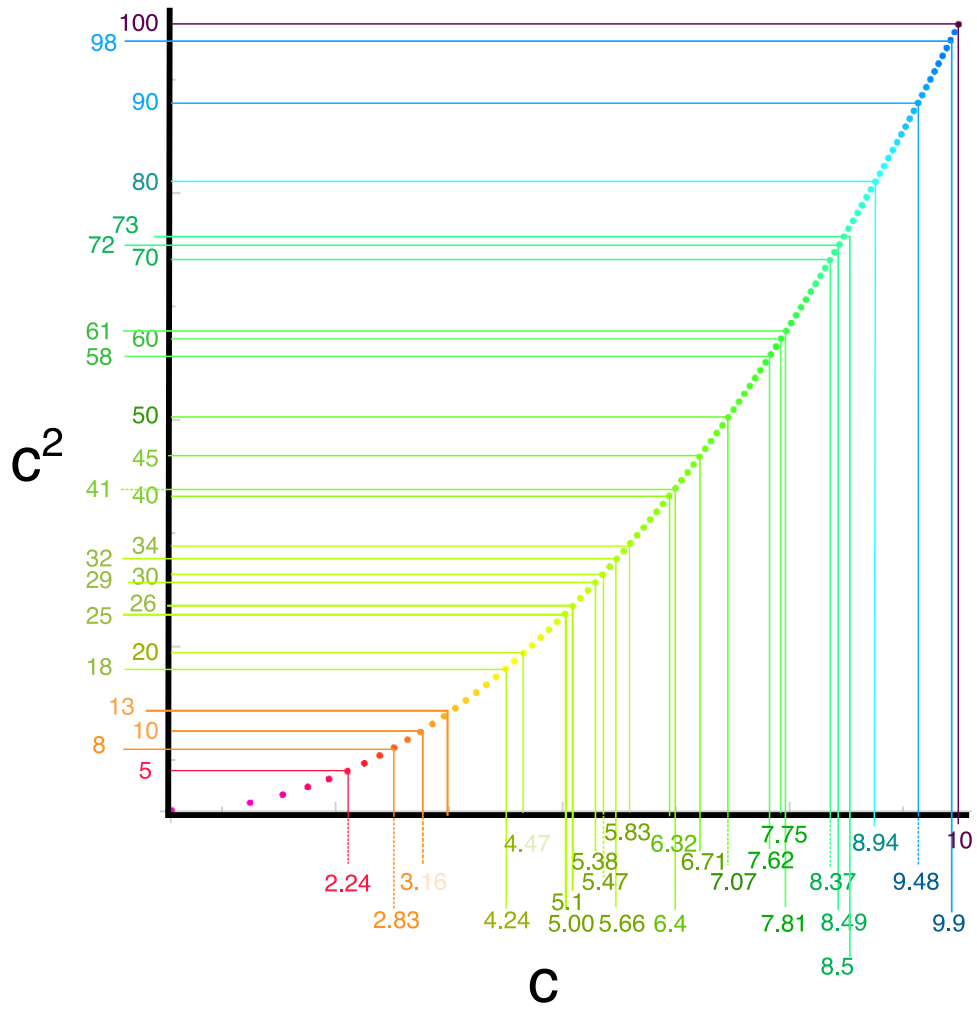


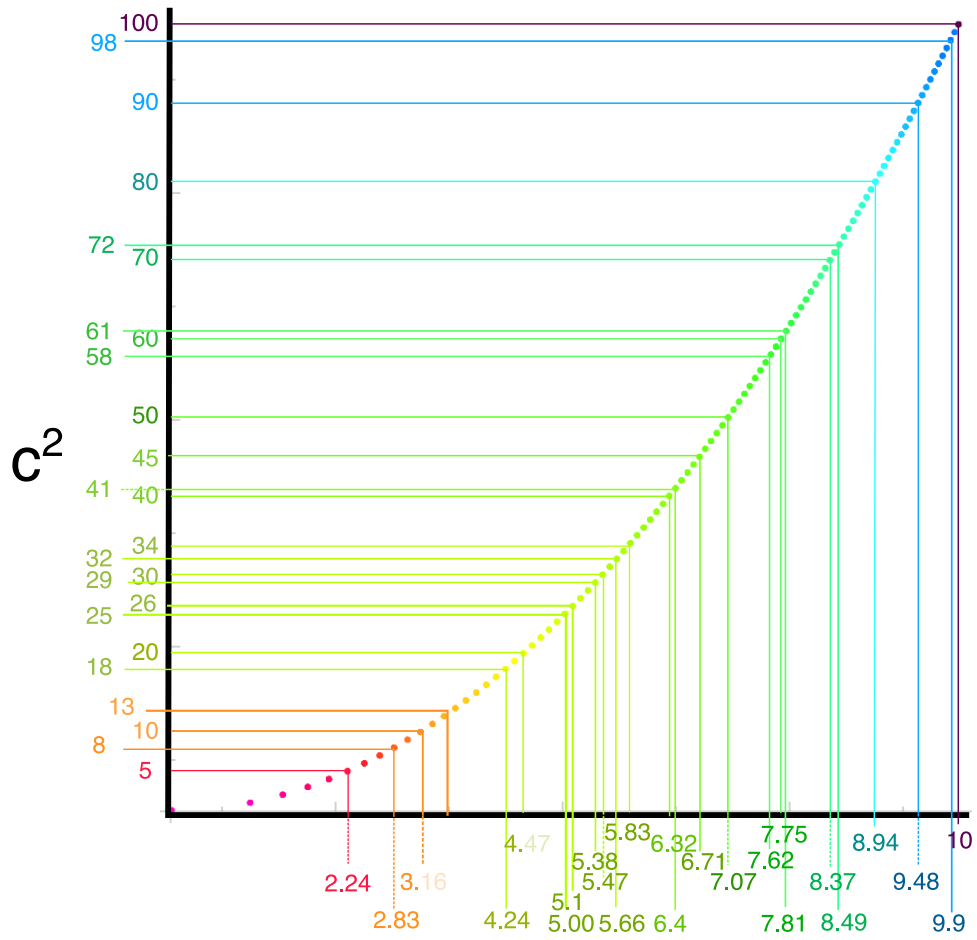
(for right triangles, i.e. the pythagorean theorem ... which we hope you can derive on the previous page)

We have learned how $a^2+b^2 = c^2$

Look around you in your everyday life for grids and, using this chart, estimate lengths of the diagonal lines. Then verify you were right with a tape measure.

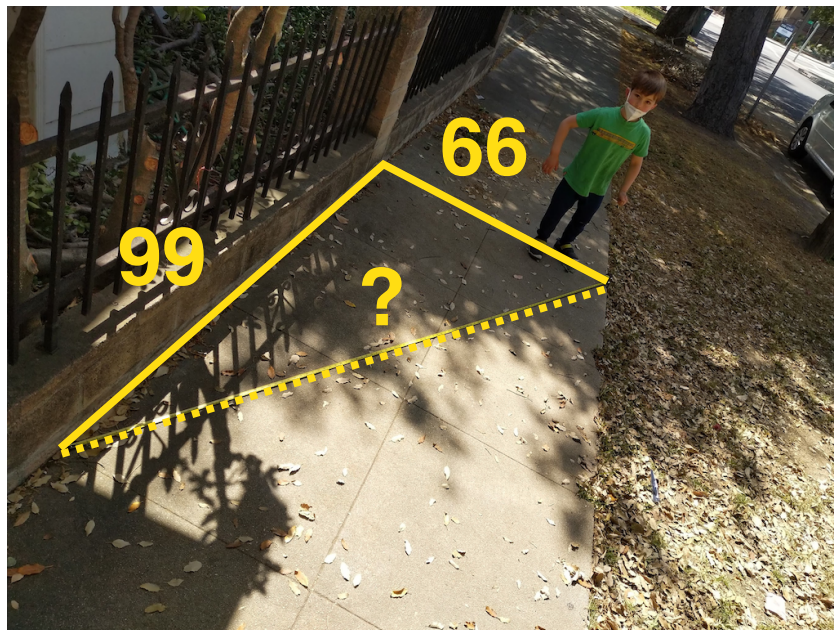
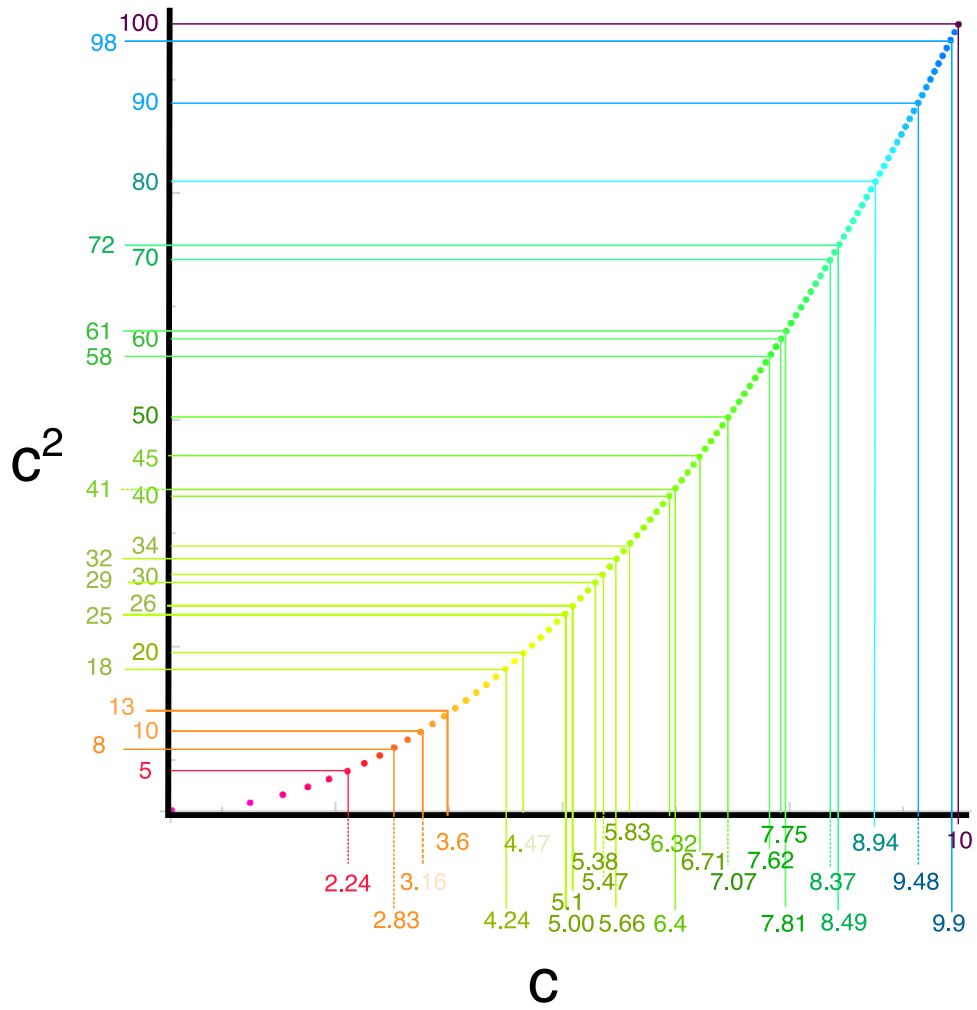


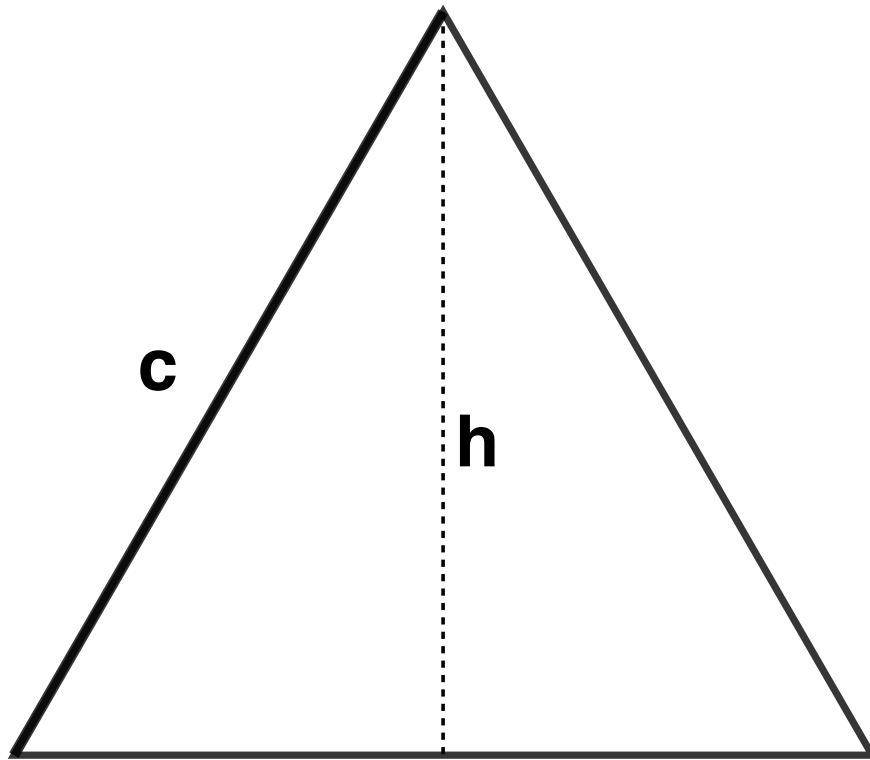




C







Given an equilateral triangle of side length **c**, find the height **h**.