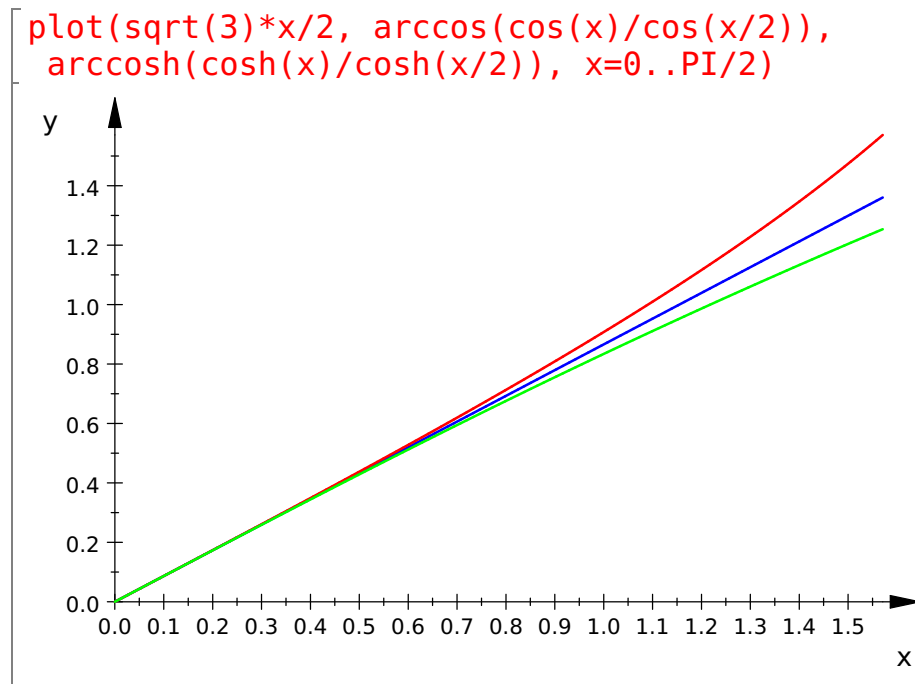


The altitude of a spherical or hyperbolic equilateral triangle

Consider an equilateral triangle with sides s in a sphere of constant curvature $k > 0$ or hyperbolic space of constant curvature $-k$, $k > 0$.

The altitude d of the triangle, multiplied by $k^{1/2}$, as a function of $x = k^{1/2}s$, is



Note that the red curve is tangent to, but above, the blue curve, which represents zero curvature, which in turn is above the green curve, which represents negative curvature.