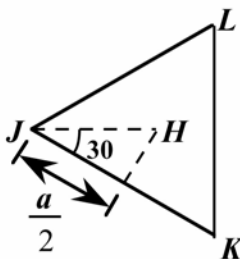


Now, we can determine the  $\overline{JH}$  length by consideration of triangle  $JKL$ , which is an equilateral triangle,



$$\cos 30^\circ = \frac{a/2}{JH} = \frac{\sqrt{3}}{2}$$

and

$$\overline{JH} = \frac{a}{\sqrt{3}}$$

Substituting this value for  $\overline{JH}$  in the above expression yields

$$a^2 = \left(\frac{a}{\sqrt{3}}\right)^2 + \left(\frac{c}{2}\right)^2 = \frac{a^2}{3} + \frac{c^2}{4}$$

and, solving for  $c/a$

$$\frac{c}{a} = \sqrt{\frac{8}{3}} = 1.633$$