Remarkable angles.

Are angles for which you can find the trigonometric ratios without using any calculator.

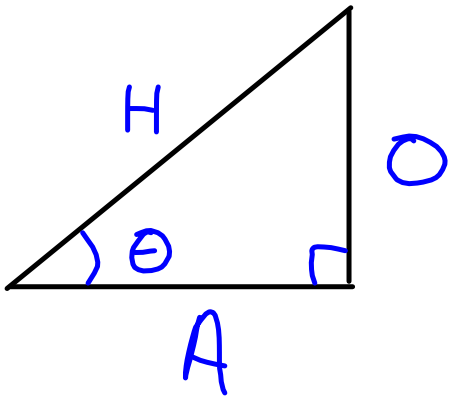
they are 0,30,45,60,90 degrees and their reflections in the x and y-axes.

Recall:

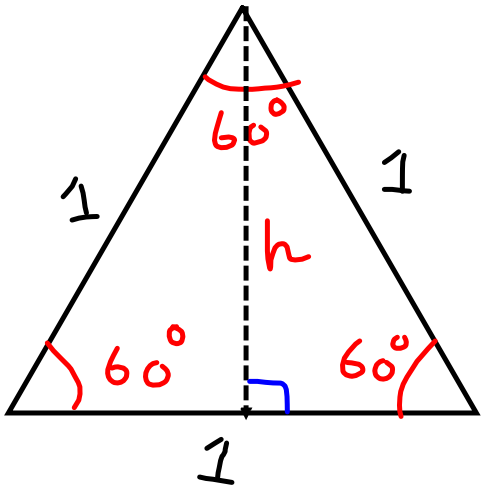
SOH

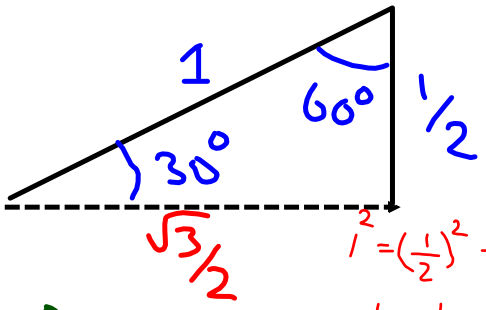
CAH

TOA



Equilateral Triangle





$1^2 = \left(\frac{1}{2}\right)^2 + h^2$

$1 = \frac{1}{4} + h^2$

$1 - \frac{1}{4} = h^2$

$\frac{3}{4} = h^2$

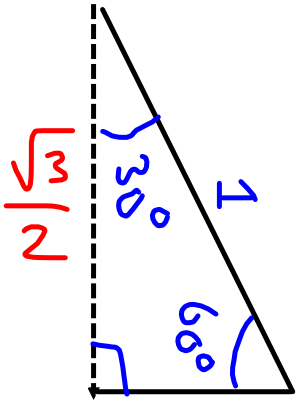
$h = \sqrt{\frac{3}{4}} = \frac{\sqrt{3}}{2}$

$\sin 30° = \frac{\frac{1}{2}}{1} = \frac{1}{2}$

$\cos 30° = \frac{\sqrt{3}}{2}$

$\tan 30° = \frac{1}{2} \div \frac{\sqrt{3}}{2}$

$\frac{1}{2} \cdot \frac{2}{\sqrt{3}} = \frac{1}{\sqrt{3}}$



$\sin 60° = \frac{\sqrt{3}}{2}$

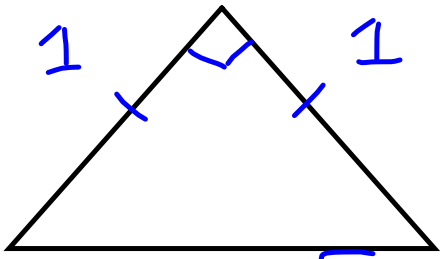
$\cos 60° = \frac{1}{2}$

$\tan 60°$

$= \frac{\sqrt{3}}{2} \div \frac{1}{2}$

$\frac{\sqrt{3}}{2} \cdot \frac{2}{1} = \sqrt{3}$

Right isosceles △

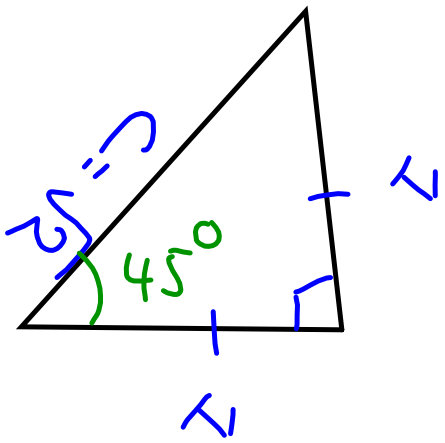


$c^2 = 1^2 + 1^2$

$c^2 = 1 + 1$

$c^2 = 2$

$c = \sqrt{2}$



$\sin 45^\circ = \frac{1}{\sqrt{2}}$

$\cos 45^\circ = \frac{1}{\sqrt{2}}$

$\tan 45^\circ = 1$