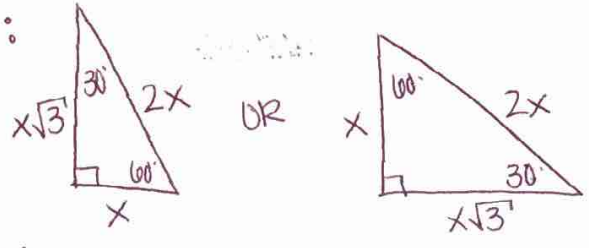


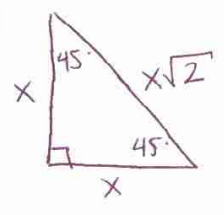
Quiz Notes

special right triangles

the 30-60-90 ratio:



the 45-45-90 ratio:



examples

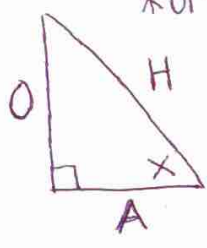
1. $10 = x\sqrt{2}$
 $\frac{(\frac{\sqrt{2}}{2})10}{(\frac{\sqrt{2}}{2})\sqrt{2}} = x$
 $\frac{10\sqrt{2}}{2} = x$
 $5\sqrt{2} = x$

2. $y = 5$
 $x = 5\sqrt{3}$

make sure you draw a picture for word problems

SOH-CAH-TOA

$\sin x = \frac{\text{opp}}{\text{hyp}}$
 $\cos x = \frac{\text{adj}}{\text{hyp}}$
 $\tan x = \frac{\text{opp}}{\text{adj}}$



*only works with right AS

examples

1. finding missing length

$\tan 15 = \frac{10}{x}$
 $x \tan 15 = \frac{10}{\tan 15}$
 $x = \frac{10}{\tan 15} \leftarrow \text{exact}$
 $x = 37.3 \leftarrow \text{approx.}$

2. missing angle

$\sin x = \frac{10}{17}$
 $x = \sin^{-1}(10/17) \leftarrow \text{exact}$
 $x = 36.03 \leftarrow \text{approx.}$