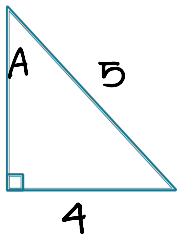
Find the missing angle, $\angle A$.

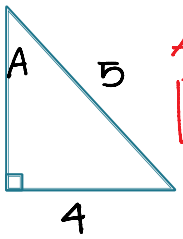


Find the missing angle, $\angle A$.

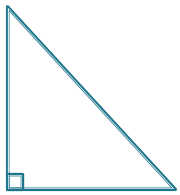
$\sin A = \frac{4}{5}$

$A = \sin^{-1}(4/5)$

$\angle A \approx 53.13^\circ$



Find cos45°

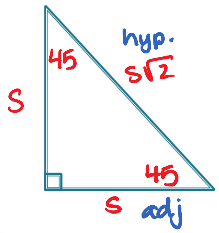


Find cos45°

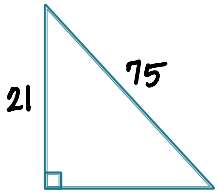
$\cos 45 = \frac{adj}{hyp}$

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

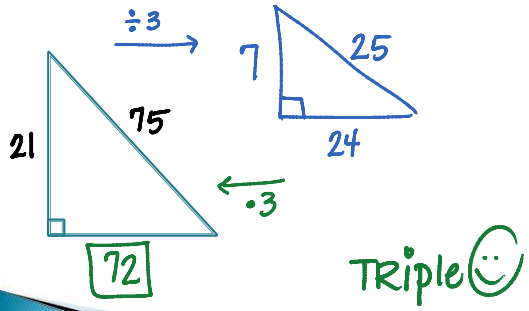
$= \frac{\sqrt{2}}{2}$



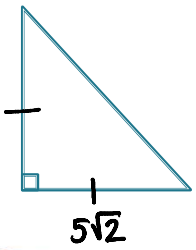
Find the missing side length.



Find the missing side length.

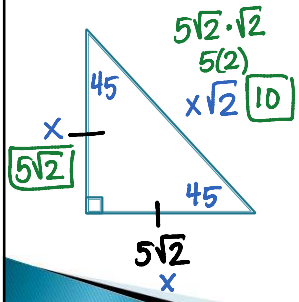


Find the missing side length.

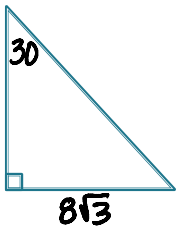


Find the missing side length.

45-45-90 Δ

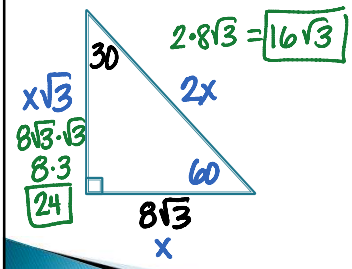


Find the missing side length.

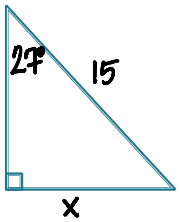


Find the missing side length.

30-60-90 Δ



Find the missing side length.



Find the missing side length.

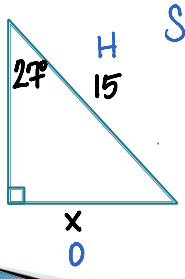
not special ☹ ... use Trig!

SOH

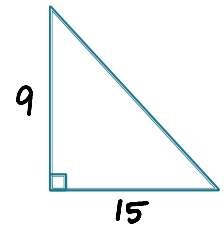
$\sin(27) = \frac{x}{15}$

$x = 15 \cdot \sin(27)$

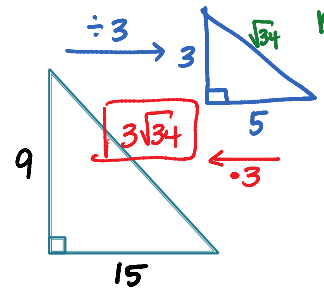
$x \approx 6.81$



Find the missing side length.



Find the missing side length.



not a triple ☹ ... use $a^2+b^2=c^2$

$3^2+5^2=c^2$

$9+25=c^2$

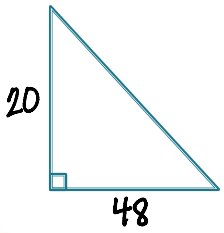
$34=c^2$

$\pm\sqrt{34}=c$

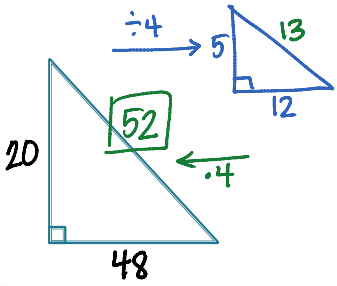
$2\sqrt{17}$

$c=\sqrt{34}$

Find the missing side length.

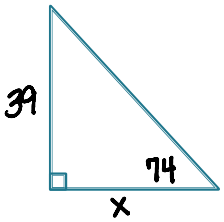


Find the missing side length.



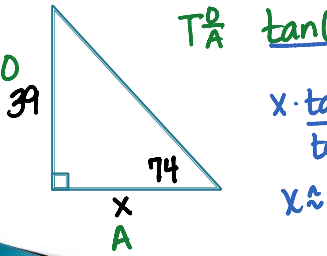
Triple... woot woot ☺

Find the missing side length.



Find the missing side length.

only one side... $SOH\,CAH\,TOA$ time ☺



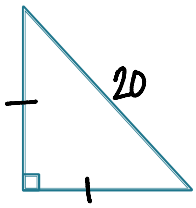
TOA $\frac{\tan(74)}{1}=\frac{39}{X}$

$X\cdot\tan(74)=39$

$\frac{X\cdot\tan(74)}{\tan(74)}=\frac{39}{\tan(74)}$

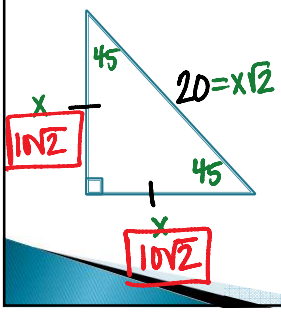
$X\approx 11.18$

Find the missing side length.



Find the missing side length.

45-45-90 Δ



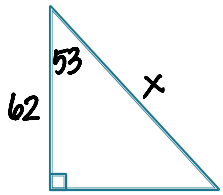
$\frac{x\sqrt{2}}{\sqrt{2}} = \frac{20}{\sqrt{2}}$

$x = 20 \cdot \frac{\sqrt{2}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$x = \frac{20\sqrt{2}}{2}$

$x = 10\sqrt{2}$

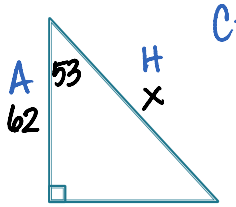
Find the missing side length.



Find the missing side length.

not special... Trig Time!

$C\frac{A}{H}$ $\cos 53 = \frac{62}{x}$

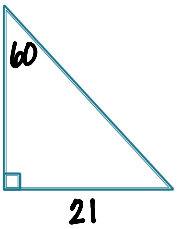


$x \cdot \cos 53 = 62$

$\frac{x \cdot \cos 53}{\cos 53} = \frac{62}{\cos 53}$

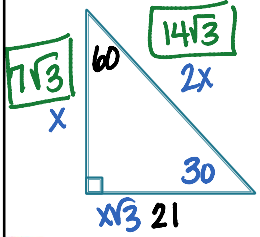
$x \approx 103.02$

Find the missing side length.



Find the missing side length.

30-60-90 Δ ☺



$\frac{x\sqrt{3}}{\sqrt{3}} = \frac{21}{\sqrt{3}}$

$x = 21 \cdot \frac{\sqrt{3}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$

$x = \frac{21\sqrt{3}}{3}$

$x = 7\sqrt{3}$