Finding Sides

$a^2+b^2=c^2$

$c=\sqrt{(a^2+b^2)}$

$a=\sqrt{(c^2-b^2)}$

$b=\sqrt{(c^2-a^2)}$

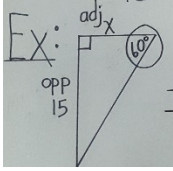
I have
2 sides
I Find
missing side

Finding Sides (using sin, cos, tan)

Strategy

- circle angle
- label sides: (given and one you want)
- use SOHCAH TOA to pick button

Ex:

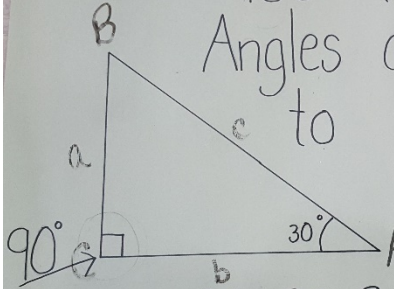


$\frac{\tan 60}{1}=\frac{15}{x}$

I have
only 1 side an angle
I Find
another side

Finding Angles

180 Rule: Angles add up to 180°



Ex. $180-30-90=60°$

I have
2 angles + another □
I find
3rd angle

Finding Angles

Strategy

- circle angle
- label given sides
- use SOH CAH TOA to pick button

Ex: $\theta=\tan^{-1}\left(\frac{opp}{adj}\right)$

[2nd] [tan] $\tan^{-1}($

I have
2 sides only angle is □
I find
an angle

SOH CAH TOA

FINDING SIDES

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

FINDING ANGLES

$\theta=\sin^{-1}\left(\frac{opp}{hyp}\right)$	$\theta=\cos^{-1}\left(\frac{adj}{hyp}\right)$	$\theta=\tan^{-1}\left(\frac{opp}{adj}\right)$