

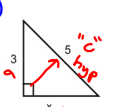
A. Warm-Up
Simplify the radicals.


① $\sqrt{32} = \sqrt{16 \cdot 2} = 4\sqrt{2}$

② $\sqrt{5} \cdot \sqrt{15} = \sqrt{75} = \sqrt{25 \cdot 3} = 5\sqrt{3}$

③ $\sqrt{6} \cdot \sqrt{12} = \sqrt{72} = \sqrt{36 \cdot 2} = 6\sqrt{2}$

Solve for x using the Pythagorean Theorem: $a^2 + b^2 = c^2$

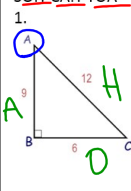
④  $3^2 + x^2 = 5^2$
 $9 + x^2 = 25$
 $x^2 = 16$
 $x = 4$

⑤  $(\sqrt{3})^2 + (\sqrt{6})^2 = x^2$
 $3 + 6 = x^2$
 $9 = x^2$
 $x = 3$

Mar 30-12:25 PM

B. Review
SOH-CAH-TOA

Find the Sin A, Cos A, and Tan A by forming a trig ratio

1. 

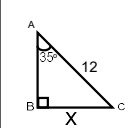
$\sin A = \frac{\text{opp}}{\text{hyp}} = \frac{6}{12} = \frac{1}{2}$

$\cos A = \frac{\text{adj}}{\text{hyp}} = \frac{9}{12} = \frac{3}{4}$

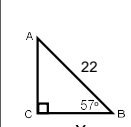
$\tan A = \frac{\text{opp}}{\text{adj}} = \frac{6}{9} = \frac{2}{3}$

Mar 30-12:25 PM

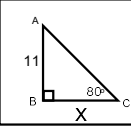
Solve for x.



Solve for x.




Solve for x.



Feb 20-11:04 AM

Quick Quiz!!!



Determine if

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

Acute $a^2 + b^2 > c^2$

Obtuse $a^2 + b^2 < c^2$

$6^2 + 8^2 \square 12^2$
 $36 + 64 \square 144$
 $100 < 144$

Mar 30-12:25 PM

New Notes

Solving for Side Lengths

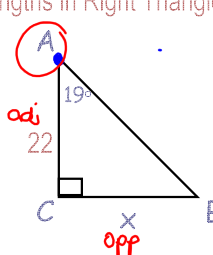
Finding Trig Ratios using a calculator

Tan $48^\circ = 1.1106$ Sin $29^\circ = .4848$ Cos $87^\circ = .0523$

Mar 30-12:28 PM

Use can use Trigonometric Ratios to solve for side lengths in Right Triangles.

SOH CAH (TOA)



Equation: $\tan 19 = \frac{x}{22}$

$\frac{22}{1} \cdot \frac{.3443}{1} = \frac{x}{22} \cdot \frac{22}{1}$

$7.58 = x$

Feb 7-3:44 PM

Steps for Solving for a Side Length:

1. Pick the Angle (circle)
2. Label the sides for the triangle
Opposite, Adjacent, Hypotenuse
3. ~~Write~~ the equation using trig ratios
SOH CAH TOA
4. Solve for x
When x is in the numerator:
When x is in the denominator:

Trig Values
4 decimal places

Final Answers
2 decimal places

X in numerator \Rightarrow Solve by multiplying by denominator

X in denominator \Rightarrow Solve by ex²
Cross Multiplying

Mar 28-8:31 AM

How can I solve for x? HINT x is a side length!!!

SOH - CAH - TOA

$$\sin 79 = \frac{22}{x}$$

calc \downarrow

$$.9816 = \frac{22}{x}$$

Cross multiply

$$.9816x = 22$$

$$\frac{.9816x}{.9816} = \frac{22}{.9816}$$

$$x = 22.41$$

Feb 7-3:49 PM

Solve for x

SOH (CAH) TOA

$$\cos 57 = \frac{x}{22}$$

$$.5446 = \frac{x}{22}$$

$$11.98 = x$$

Feb 7-3:50 PM

Solve for x

- 1st Circle Angle that has degree
- 2nd Label sides from Angle
- 3rd Choose trig ratio from SOH CAH TOA
- 4th Write equation
- 5th Replace trig value with calculator...
- 6th Solve

SOH (CAH) TOA

$$\cos 19 = \frac{x}{14}$$

$$.9455 = \frac{x}{14}$$

$$x = 13.24$$

Apr 19-7:26 PM

Solve for x

SOH (CAH) TOA

$$\sin 74 = \frac{x}{6}$$

$$.9612 = \frac{x}{6}$$

$$5.77 = x$$

Apr 30-8:43 AM

B. Try On Your Own

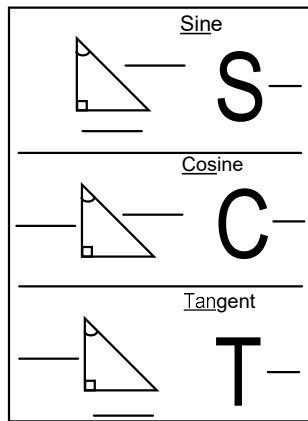
Example 6:

Example 7:

Example 8:

Mar 31-2:21 PM

Foldable!!



Feb 20-11:03 AM

Practice: 😊
"Why Did The Professional Dog
Walker Go Out of Business?"

Apr 19-7:30 PM

Homework: Worksheet E

Feb 20-10:51 AM