

Math 2

Unit 5 Day 4 Notes – Solving Right Triangles Cont.

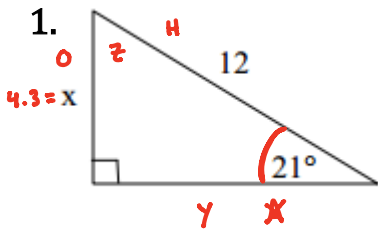
Solving Right Triangles – Finding ALL that is missing:

Examples:

Name: Key

Date: _____

Notice that the angle is in degrees.
Because of this, you **MUST** to put your calculator in **DEGREE MODE!!!**



~~SOH CAH TOA~~

$$\frac{\sin 21 = \frac{x}{12}}{1}$$

$$x = 12 \sin 21$$

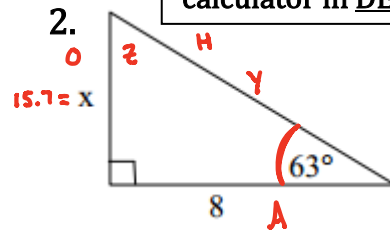
① $x \approx 4.3$

$$\begin{array}{r} 4.3^2 + y^2 = 12^2 \\ -4.3^2 \quad -4.3^2 \\ \hline y^2 = 125.51 \end{array}$$

② $y \approx 11.2$

$$z = 90 - 21$$

③ $z = 69^\circ$



~~SOH CAH TOA~~

$$\frac{\tan 63 = \frac{x}{8}}{1}$$

$$x = 8 \tan 63$$

① $x \approx 15.7$

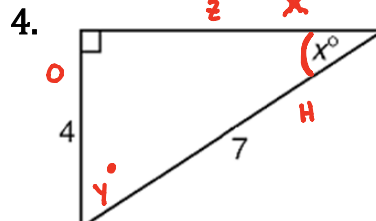
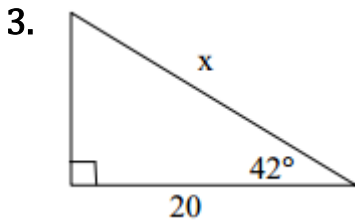
$$15.7^2 + 8^2 = y^2$$

$$\sqrt{310.49} = \sqrt{y^2}$$

④ $y \approx 17.6$

$$z = 90 - 63$$

⑤ $z = 27^\circ$



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$$\sin x = \frac{4}{7}$$

$$\sin^{-1}\left(\frac{4}{7}\right)$$

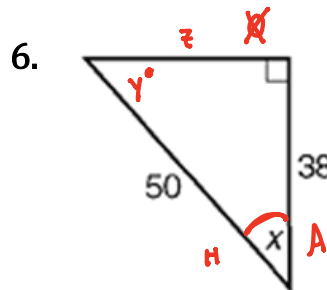
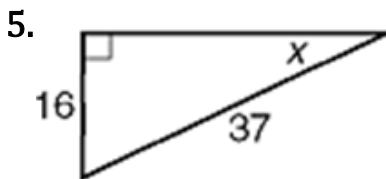
① $x = 35^\circ$

$$y = 90 - 35$$

② $y = 55^\circ$

$$\begin{array}{r} 4^2 + z^2 = 7^2 \\ -4^2 \quad -4^2 \\ \hline z^2 = 33 \end{array}$$

③ $z \approx 5.7$



~~SOH CAH TOA~~

$$\cos x = \frac{38}{50}$$

$$\cos^{-1}\left(\frac{38}{50}\right)$$

① $x = 41^\circ$

$$y = 90 - 41$$

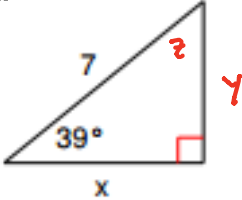
② $y = 49^\circ$

$$\begin{array}{r} 38^2 + z^2 = 50^2 \\ -38^2 \quad -38^2 \\ \hline z^2 = 1056 \end{array}$$

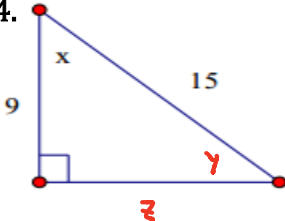
③ $z \approx 32.5$

Unit 5 Day 5 HW

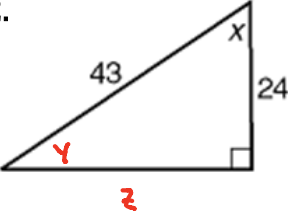
1.



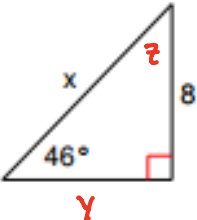
4.



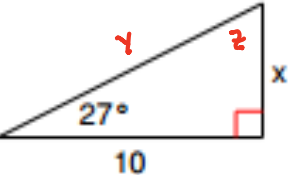
2.



5.



3.



6.

