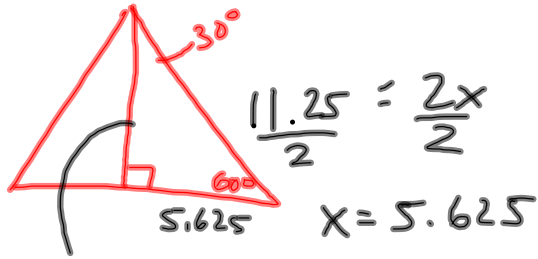


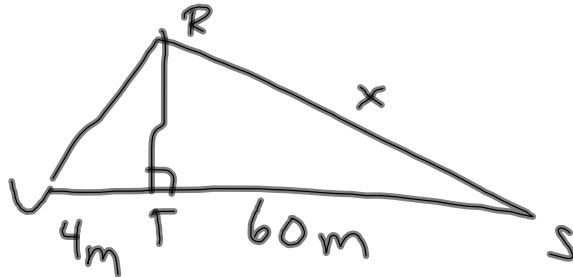
8.



$$5.625 \sqrt{3}$$

$$9.75 \text{ in}$$

14.

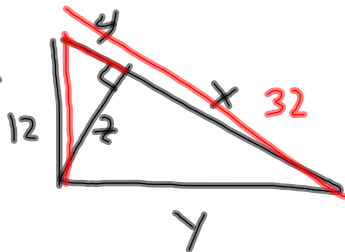


$$x^2 = 60 \cdot 64$$

$$\sqrt{x^2} = \sqrt{3840}$$

$$x = 62.0 \text{ m}$$

24.



$$12^2 = 4(4+x)$$

$$144 = 16 + 4x$$

$$\begin{array}{r} -16 \quad -16 \\ \hline 128 = 4x \\ \frac{128}{4} = \frac{4x}{4} \quad x = 32 \end{array}$$

$$z^2 = 32 \cdot 4$$

$$\sqrt{z^2} = \sqrt{128}$$

$$z = 11.3$$

$$y^2 =$$

$$\begin{array}{r} 0-7+ \\ 8-15 \checkmark \\ 16 \uparrow - \end{array}$$

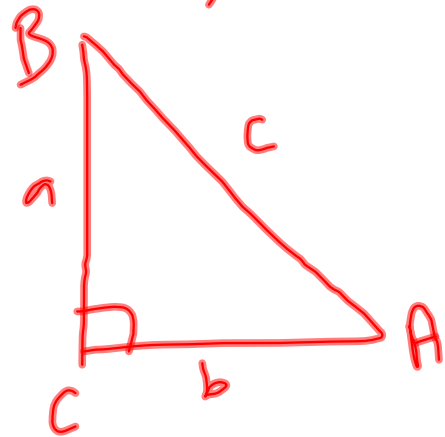
8.2 Trigratios

- ratio of 2 sides of a rt. Δ .

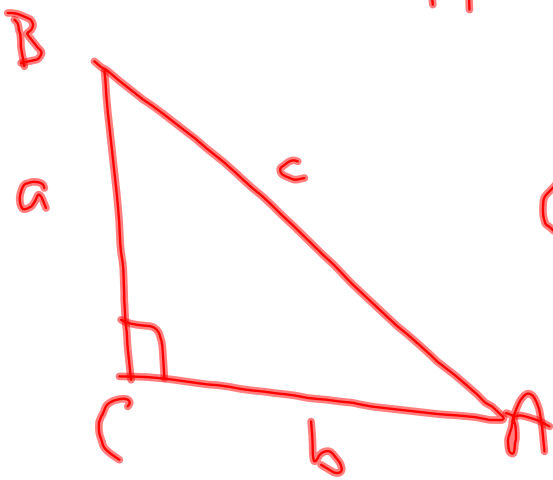
Trigratios

i) Sine: the sine of an \angle is the ratio of the opposite leg and the hypotenuse.

$$\sin A = \frac{a}{c}$$

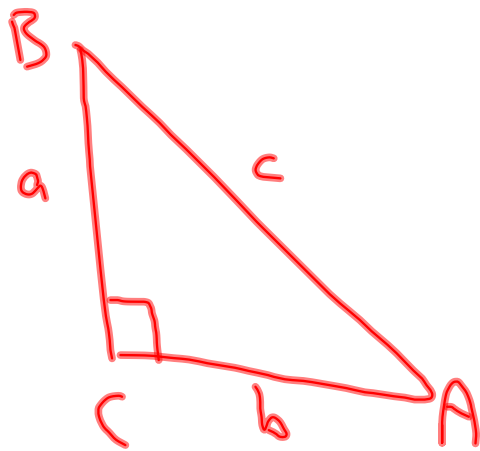


cosine: the cosine of an \angle is the ratio of the side adjacent and the hypotenuse.



$$\cos A = \frac{b}{c}$$

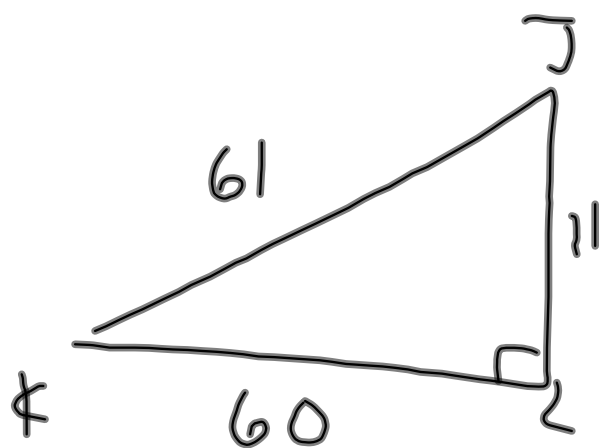
Tangent: the tangent of an \angle is the ratio of the opposite side to the adjacent side.



$$\tan A = \frac{6}{5}$$

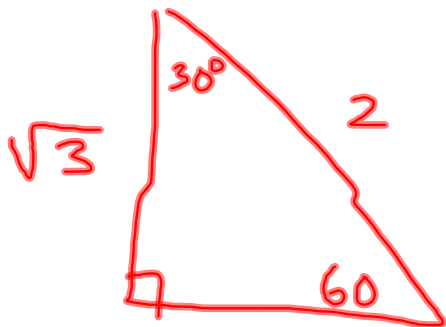
$$\sin = \frac{\text{opp}}{\text{hyp}} \quad \cos = \frac{\text{adj}}{\text{hyp}} \quad \tan = \frac{\text{opp}}{\text{adj}}$$

SOH CAHTOA



$$\begin{aligned} \sin K &= \frac{11}{61} \\ \cos J &= \frac{60}{61} \\ \tan K &= \frac{11}{60} \end{aligned}$$

Find the $\cos 30^\circ$.

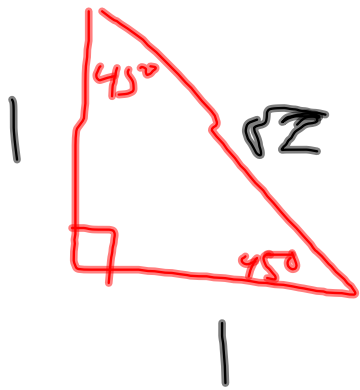


assume, $30-60-90$
 $45-45-90$

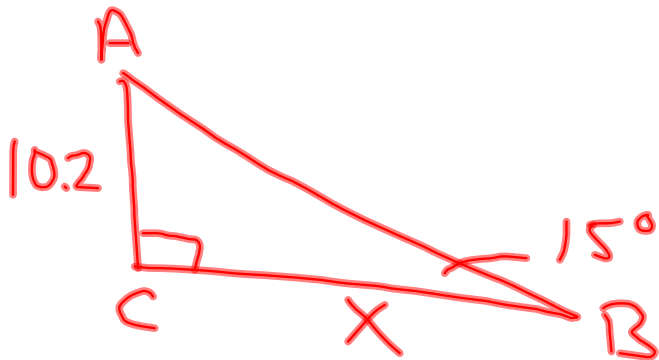
then $x = 1$

$$\cos 30 = \frac{A}{H} = \frac{\sqrt{3}}{2}$$

Find $\tan 45^\circ$



$$\begin{aligned}\tan 45^\circ &= \frac{O}{A} \\ &= \frac{1}{1} \\ &= 1\end{aligned}$$



Find BC

$$\tan 15 = \frac{o}{A}$$

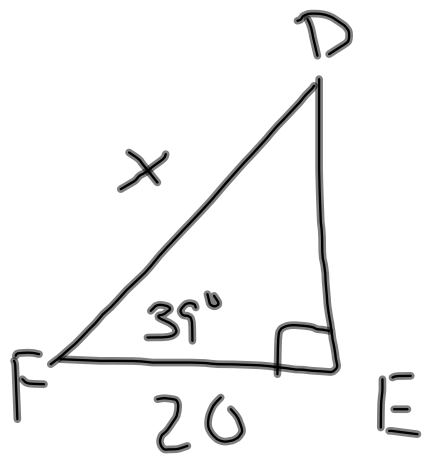
~~$$\tan 15 = \frac{10.2}{X}$$~~

$$\underline{X \tan 15 = 10.2}$$

$$\tan 15 \quad \tan 15$$

$$X = \frac{10.2}{\tan 15}$$

$$X = 38.067$$



FD

$$\cos 39 = \frac{A}{H}$$

~~$$\cos 39 = \frac{20}{x}$$~~

$$\frac{x \cos 39}{\cos 39} = \frac{20}{\cos 39}$$

$$x = \frac{20}{\cos 39}$$

$$x = 25.735$$

p. 529 2-42 even
odds extra credit