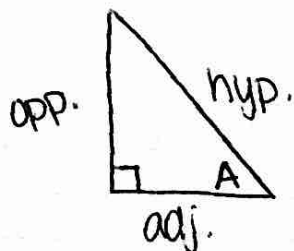


Intro to Trig. 12.1

A2

- CU
to
- find the side lengths of a right Δ using
SOH - CAH - TOA

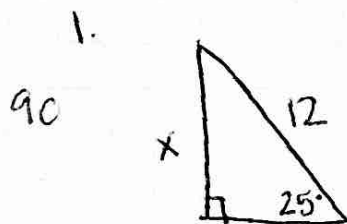


$$\sin A = \frac{\text{opp}}{\text{hyp}} \quad (\text{sine})$$

$$\cos A = \frac{\text{adj}}{\text{hyp}} \quad (\text{cosine})$$

$$\tan A = \frac{\text{opp}}{\text{adj}} \quad (\text{tangent})$$

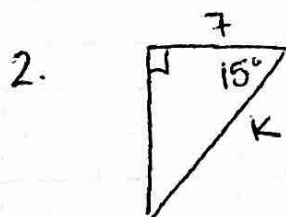
examples



$$\sin 25 = \frac{x}{12}$$

$$12 \sin 25 = x \leftarrow \text{exact}$$

$$5.1 = x \leftarrow \text{approx}$$



$$\cos 15^\circ = \frac{7}{k}$$

$$k \cdot \cos 15^\circ = 7$$

$$k = \frac{7}{\cos 15} \leftarrow \text{exact}$$

$$k = 7.2 \leftarrow \text{approx}$$

word problems

* always draw a picture.

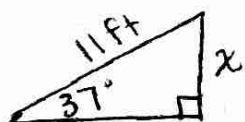
ex The bottom of a skate board ramp makes a 37° angle with the ground. If the ramp is 11ft long, how high is it?

..14 picture

solve

in words

6.6ft high



$$\sin 37 = \frac{x}{11}$$

$$x = 6.6$$