

TRIGONOMETRY REVIEW :

Note Title

20/09/2017

I Three trig ratios should be familiar:

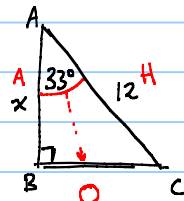
$$\text{tangent } \theta = \frac{\text{opposite}}{\text{adjacent}} \quad \text{sine } \theta = \frac{\text{opposite}}{\text{hypotenuse}} \quad \text{cosine } \theta = \frac{\text{adj}}{\text{hyp}}$$

SOH CAH TOA

II In 90° Δ 's (called right triangles) we can use trig to find missing sides &/or missing angles

i) Missing side:

$$\Delta ABC, \angle A = 33^\circ \\ AC = 12 \quad AB = ?$$



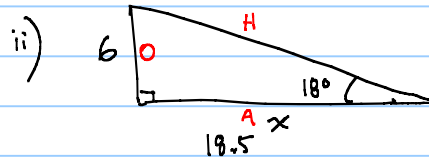
- Steps: ① Label Δ O, H, A
 ② Choose correct trig. ratio
 ③ Solve

$$\text{Cosine } \theta = \frac{\text{adj}}{\text{hyp}}$$

$$\cos 33^\circ = \frac{x}{12}$$

$$12 \cdot \cos 33^\circ = x$$

$$10 = x$$



$$\tan 18^\circ = \frac{6}{A}$$

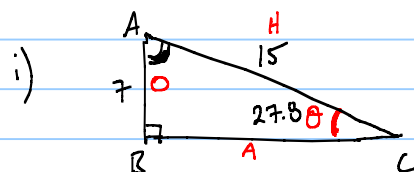
$$\tan 18^\circ = \frac{6}{x}$$

$$x \tan 18^\circ = 6$$

$$x = \frac{6}{\tan 18^\circ}$$

$$x = 18.5$$

III Finding an \angle



Find $\angle C$ $\text{Sine } \theta = \frac{\text{opp}}{\text{hyp}}$

$$\text{Sine } \theta = \frac{7}{15}$$

$$\sin^{-1} \theta = 27.8^\circ$$

Definitions for WORD PROBLEMS

