

## SOLVING RIGHT TRIANGLES

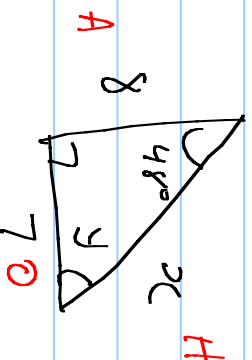
— WE CAN NOW SOLVE RIGHT TRIANGLES BY :

- ① TRIG RATIOS (SEN, COS, TAN)
- ② PYTHAGORUS  $a^2 + b^2 = c^2$
- ③ PROPERTIES OF TRIANGLES (ANGLES ADD UP TO  $180^\circ$ )
- ④ SLOPE ( $\frac{\text{RISSE}}{\text{RUN}}$ ) ?

WE SOLVE FOR  $x + y$

$$\angle y = 180 - 90 - 48$$

$$\angle y = 42^\circ$$



$$\sin \theta = \frac{O}{H}$$

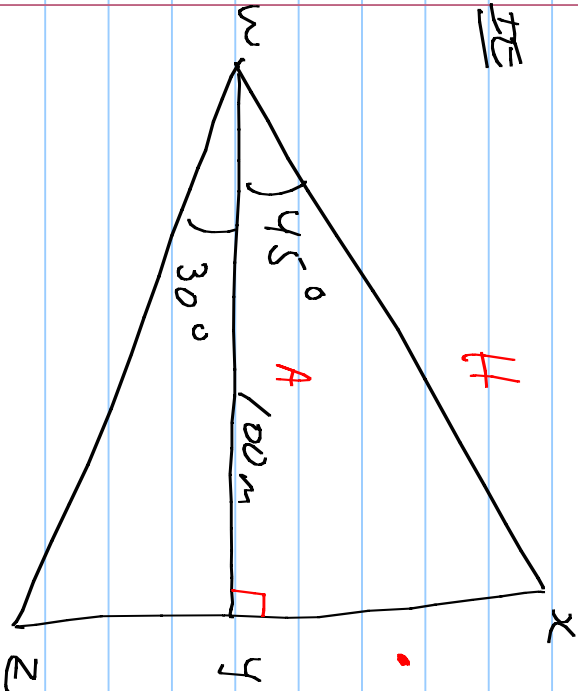
$$\sin 48 = \frac{7}{x}$$

$$0.7431 = \frac{7}{x}$$

$$x = 7 \div 0.7431$$

$$x = 9.41$$

THE



FIND DISTANCE FROM X TO Z

$$\tan \theta = \frac{O}{A} \quad \tan 30 = \frac{x}{100}$$

$$\tan 45 = \frac{x}{100} \quad 0.577 = \frac{x}{100}$$

$$1 = \frac{x}{100} \quad 57.7 = x$$

$$x = 100$$

$$\text{DISTANCE } 100 + 57.7 = 157.7 \text{ m}$$

Hlw R<sub>c</sub> 131 # 1-6, 8, 11, 14