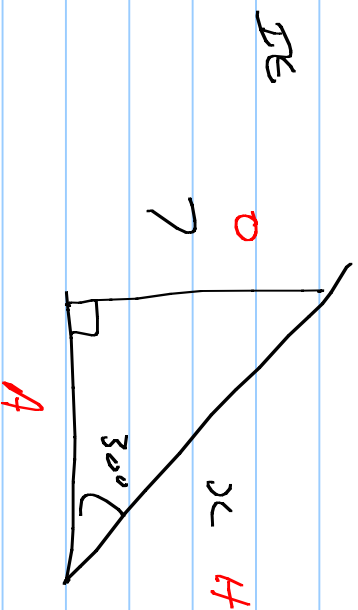


## SINE LAW

RECALL: WE CAN SOLVE ANY RIGHT TRIANGLE

USING SIN / COS / TAN GIVEN WE HAVE 4 SIDES

AND AN ANGLE OR 2 SIDES.



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

$$\sin 30 = \frac{7}{x}$$

$$0.5 = \frac{7}{x}$$

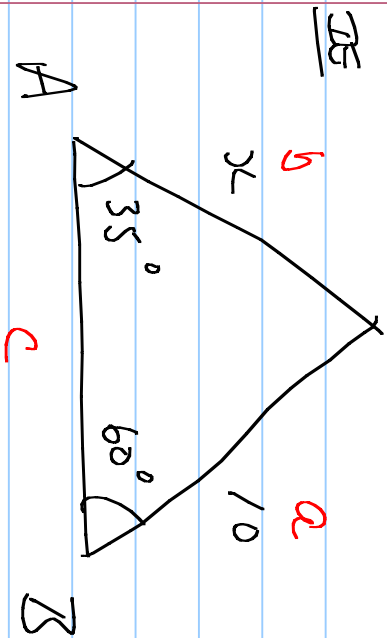
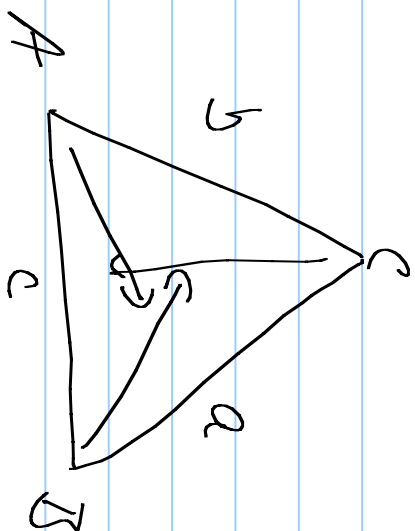
$$x = 7 \div 0.5$$

$$x = 14$$

## SINE LAW :

IN ANY TRIANGLE ABC

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$



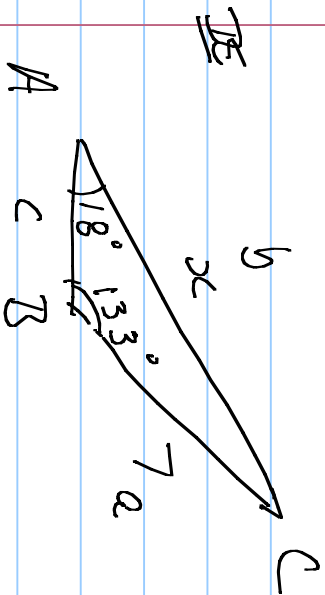
$$\frac{\sin A}{a} = \frac{\sin B}{b}$$

$$\frac{\sin 35}{10} \rightarrow \frac{\sin 60}{x}$$

$$\frac{10 \times \sin 60}{\sin 35} = x$$

$$\frac{10 \times .866}{.574} = x$$

$$15,09 = x$$



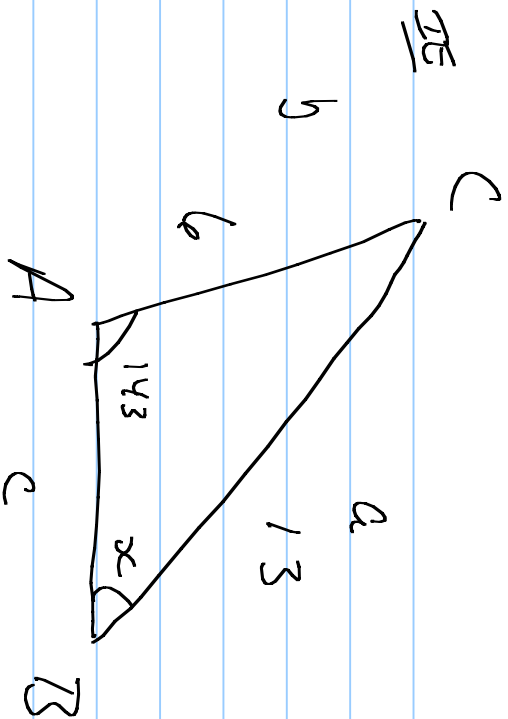
$$\frac{\sin A}{a} = \frac{\sin B}{b}$$

$$\frac{\sin 18}{7} = \frac{\sin 133}{x}$$

$$\frac{.31}{7} = \frac{.73}{x}$$

$$x = 7 \times .73 \div .31$$

$$x = 16.5$$



$$\frac{\sin A}{a} = \frac{\sin B}{b}$$

$$\frac{\sin 143}{13} = \frac{\sin x}{6}$$

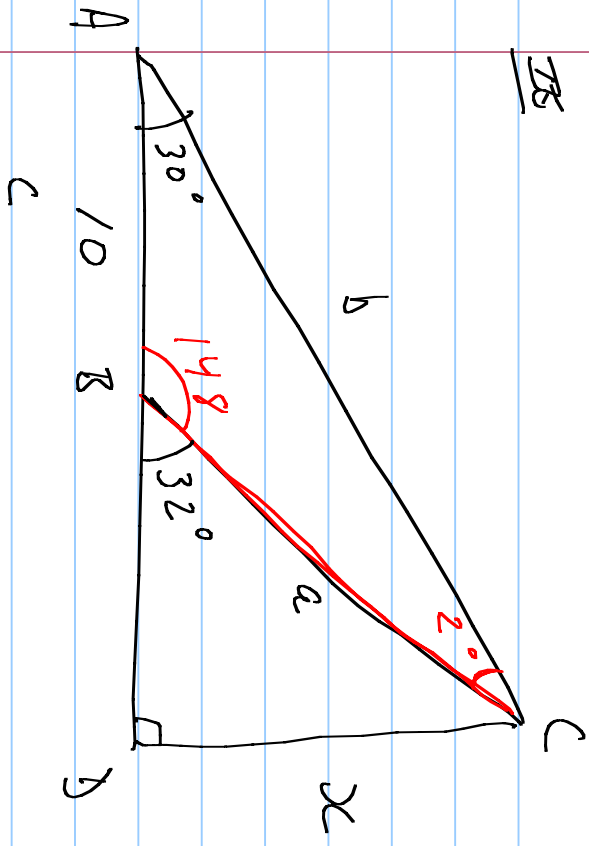
$$\frac{6}{13} = \frac{\sin x}{6}$$

$$\sin x = 6 \times 6 \div 13$$

$$\sin x = 0.2769$$

$$\sin^{-1} 0.2769 = 16^\circ$$

TS



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

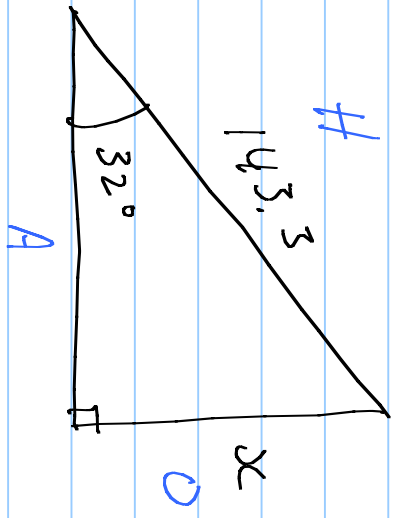
$$\frac{\sin 30}{x} = \frac{\sin 2}{10}$$

$$\frac{.5}{x} = \frac{.035}{10}$$

$$x = \sin 30 \times 10 \div \sin 2$$

$$x = .5 \times 10 \div .035$$

$$x = 143.3$$



$$SZJ\Theta = \frac{0}{4}$$

$$SZJ\beta = \frac{x}{143.3}$$

$$.53 = \frac{x}{143.3}$$

$$x = .53 \times 143.3$$

$$x = 76.4$$

H/W

Pg 184

# 1-4 1<sup>st</sup> + LAST

# 6, 7, 11