

$$\sin \frac{\text{opp}}{\text{hyp}}$$

$$\cos \frac{\text{adj}}{\text{hyp}}$$

$$\tan \frac{\text{opp}}{\text{adj}}$$

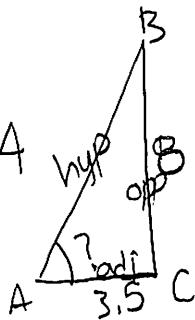
Hypotenuse is the side opposite to the 90° angle in a right triangle. (longest side of the right triangle)

Adjacent leg is the other side that is adjacent to angle A.

Opposite side is the side that is opposite to angle A.

Example 1

- Find angle A



$$\tan A = \frac{8}{3.5}$$

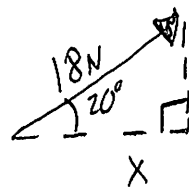
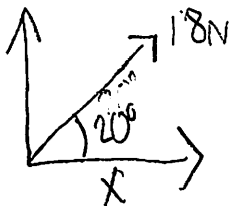
$$A = \tan^{-1}\left(\frac{8}{3.5}\right)$$

$$A = \tan^{-1}(2.857)$$

$A = 66.4^\circ$

Example 2

- What are the horizontal components of Force in this illustration?



$$18 \cos 20 = \frac{x}{18} \cdot 18 = 7.35$$

$x = 7.35 \text{ N}$