

Trigonometry

trig·o·nom·e·try

TRIANGLE MEASURING

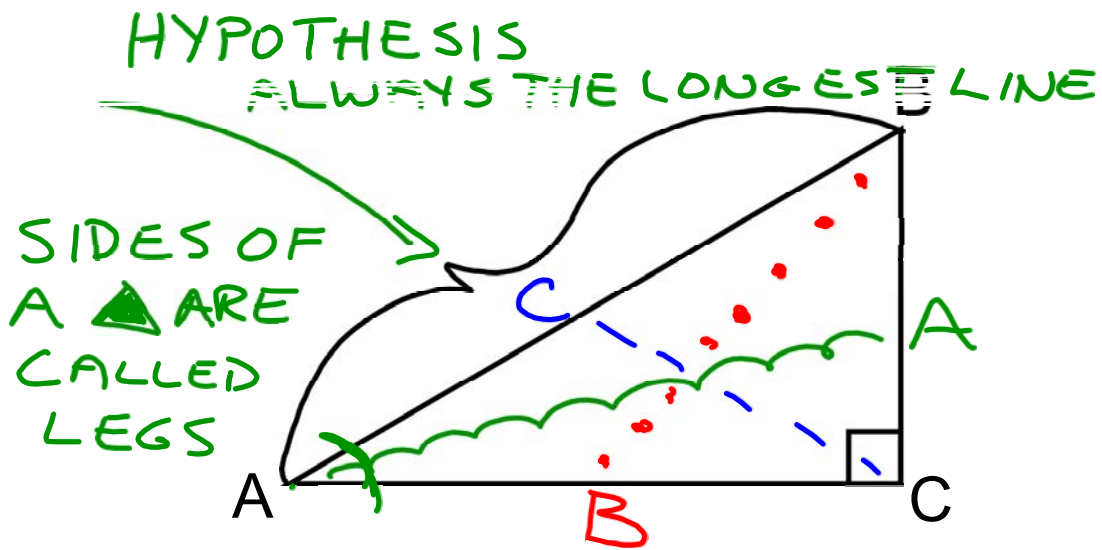
the branch of mathematics dealing with the relations of the sides and angles of triangles and with the relevant functions of any angles

- we use trig to find missing sides and angles
- the Δ must be a right \triangle

How tall is the tree?



TO BE CONTINUED

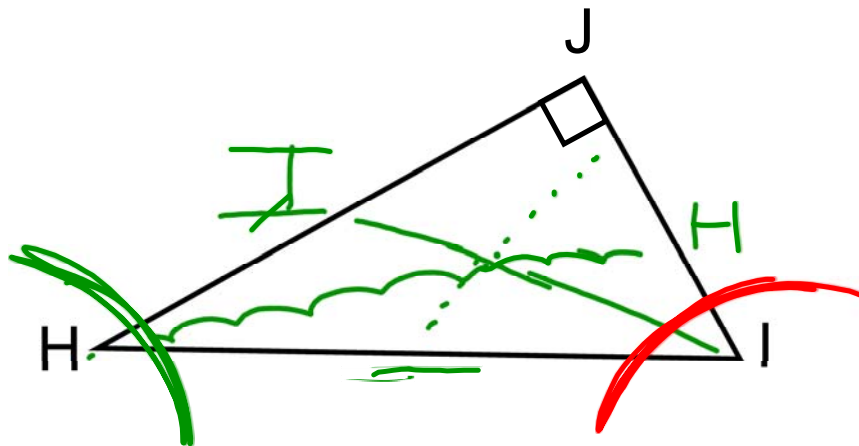


HYPOTHENUSE IS NEVER THE ADJACENT ANGLE

From $\angle A$ the opposite side is **A**
 From $\angle A$ the adjacent side is **B**

From $\angle B$ the opp side is **B**
 From $\angle B$ the adj side is **A**



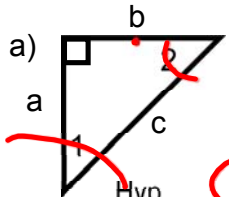


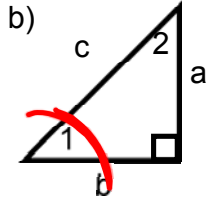
For $\triangle HJI$

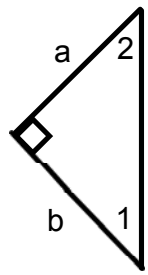
- 1) What side is the hypotenuse? J
- 2) What side is adj to $\angle H$? I
- 3) What side is opp to $\angle H$? J
- 4) What side is adj to $\angle I$? J
- 5) What side is opp to $\angle I$? I

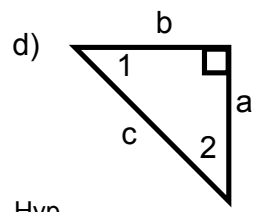
IDENTIFYING THE SIDES OF A RIGHT TRIANGLE

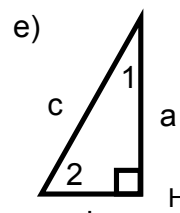
1. In each triangle below, identify the hypotenuse, the opposite side, and the adjacent side in respect to angles 1 and 2.

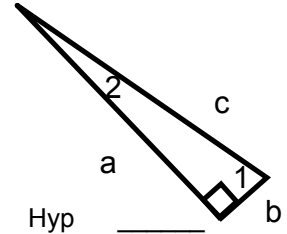
a) 
 Hyp C
 Opp $\angle 1$ B
 Opp $\angle 2$ A
 Adj $\angle 1$ A
 Adj $\angle 2$ B

b) 
 Hyp C
 Opp $\angle 1$ A
 Opp $\angle 2$ _____
 Adj $\angle 1$ _____
 Adj $\angle 2$ _____

c) 
 Hyp _____
 Opp $\angle 1$ _____
 Opp $\angle 2$ _____
 Adj $\angle 1$ _____
 Adj $\angle 2$ _____

d) 
 Hyp _____
 Opp $\angle 1$ _____
 Opp $\angle 2$ _____
 Adj $\angle 1$ _____
 Adj $\angle 2$ _____

e) 
 Hyp _____
 Opp $\angle 1$ _____
 Opp $\angle 2$ _____
 Adj $\angle 1$ _____
 Adj $\angle 2$ _____

f) 
 Hyp _____
 Opp $\angle 1$ _____
 Opp $\angle 2$ _____
 Adj $\angle 1$ _____
 Adj $\angle 2$ _____

2. Find each side as indicated in $\triangle DEF$

- a) hypotenuse _____
- b) side opposite $\angle D$ _____
- c) side adjacent $\angle E$ _____
- d) side adjacent $\angle D$ _____
- e) side opposite $\angle E$ _____

