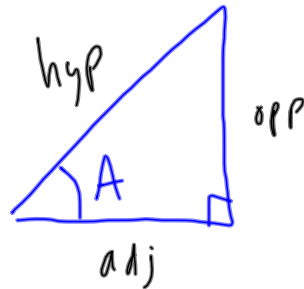


# TAN REVIEW

"opp", "hyp", and "adj"

0. a) PUT THE ABBREVIATIONS

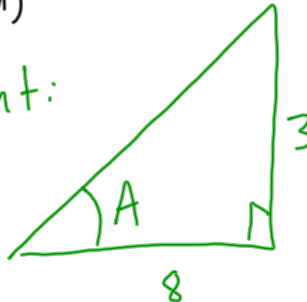
on this triangle,  
where the given  
angle is A:



b)  $\tan A = \frac{\text{opp}}{\text{adj}}$

1. Refer to the  $\Delta$  on the right:

a)  $\tan(A) = \frac{3}{8}$  [exactly]



b)  $A = \tan^{-1}\left(\frac{3}{8}\right) = 21^\circ$  [to nearest degree]

2. Circle on table and find values.

DO NOT FORGET TO **CIRCLE** THE ANSWERS IN THE TABLE!

a)  $\tan(39^\circ) = 0.8098$  [round to 4 decimals]

b)  $\tan^{-1}(5.6713) = 80^\circ$  ["round" to nearest degree]

c)  $\tan^{-1}(0.25) = 14^\circ$  [round to nearest degree]

3. Use the calculator to find

a)  $\tan(17^\circ) = 0.305731$  [rounded to 6 decimals]

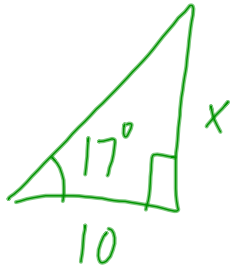
b)  $\tan^{-1}(1.39476) = 54.36^\circ$  [round to 2 decimals and write unit measure]

2nd TAN

4, Solve for X. Round to 1 decimal

(nearest tenth).

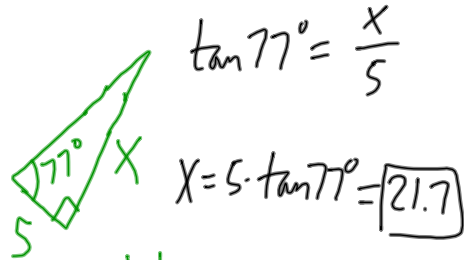
a,



$$\tan 17^\circ = \frac{x}{10}$$

$$x = 10 \cdot \tan 17^\circ = \boxed{3.1}$$

b,



$$\tan 77^\circ = \frac{x}{5}$$

$$x = 5 \cdot \tan 77^\circ = \boxed{21.7}$$

Whole

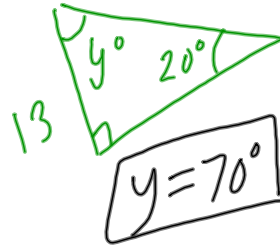
5, Solve for y. Answer to nearest degree.

a,



$$y = \tan^{-1}\left(\frac{1}{4}\right) = \boxed{14^\circ}$$

b,

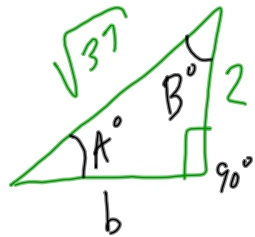


$$y = \boxed{70^\circ}$$

6. Find all missing sides and angles.

Use  $\tan A$ .

a,



$$a^2 + b^2 = c^2$$

$$2^2 + b^2 = (\sqrt{37})^2$$

$$4 + b^2 = 37$$

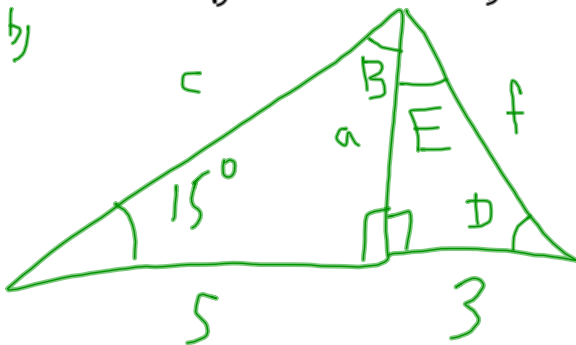
$$b^2 = 33$$

$$b = \sqrt{33} \text{ or } b = -\sqrt{33}$$

$$\tan A = \frac{2}{\sqrt{33}} \quad A = \boxed{19.1958^\circ}$$

$$B = 90^\circ - A = \boxed{70.8042^\circ}$$

b,



$$a = 5 \tan 15^\circ = \boxed{1.3397}$$

$$B = \boxed{75^\circ}$$

$$c = \sqrt{1.3397^2 + 5^2} = \boxed{5.1764}$$

$$D = \tan^{-1}\left(\frac{1.3397}{3}\right) = \boxed{24.0647^\circ}$$

$$E = 90^\circ - D = \boxed{65.9353^\circ}$$

$$f = \sqrt{1.3397^2 + 3^2} = \boxed{3.2856}$$