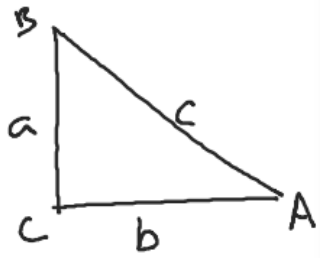
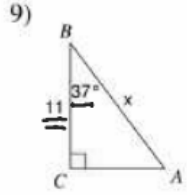


α - alpha

β - beta

Solve the triangle for the variable shown.

9)



$\cos B = \frac{Adj}{Hypot}$

$\cos 37° = \frac{11}{x}$

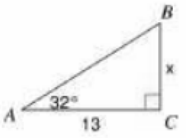
$x \cos 37° = 11$

$\frac{x \cos 37°}{\cos 37°} = \frac{11}{\cos 37°}$

$x = \frac{11}{\cos 37°}$

$= 13.773$

10)



$\tan A = \frac{opp}{Adj}$

$13(\tan 32) = \left(\frac{x}{13}\right)13$

$13 \cdot \tan 32 = x$

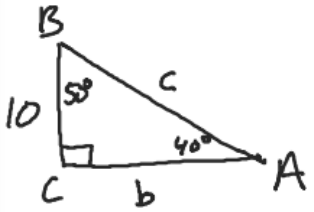
$x = 8.123$

Solve the Δ

Find all unknown parts,

Solve the triangle ABC for all of its unknown parts. Assume C is the right angle.

$\alpha = 40°$ $a = 10$



$m\angle B = 50°$ b

c

$\tan 40° = \frac{10}{b}$

$b = \frac{10}{\tan 40°}$

$\tan 50° = \frac{b}{10}$

$b = 10 \tan 50°$

$= 11.918$

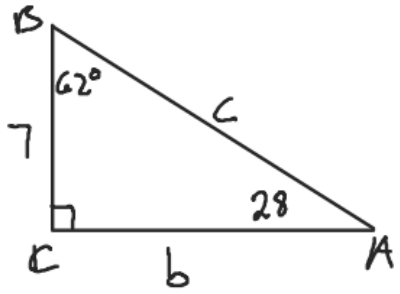
$10^2 + (11.918)^2 = c^2$

$c = 15.558$

Solve the triangle ABC for all of its unknown parts. Assume C is the right angle.

$m\angle A = 28^\circ$ $b = 13.165$

$\beta = 62^\circ$ $a = 7$

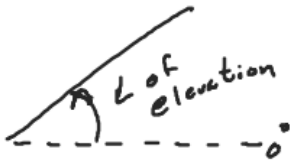


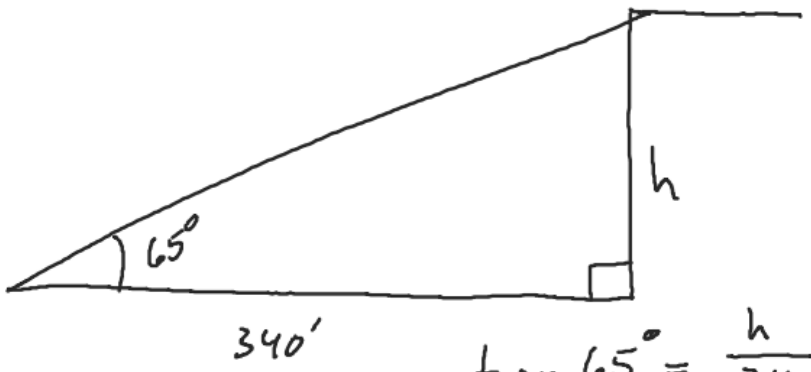
$c = 14.91$

$\tan 62^\circ = \frac{b}{7}$

$b = 7\tan 62^\circ$

Example 6: From a point 340 feet away from the base of the Peachtree Center Plaza in Atlanta, Georgia, the angle of elevation to the top of the building is 65°. Find the height of the building.





$\tan 65^\circ = \frac{h}{340}$

$h = 340\tan 65^\circ$

$= 729.132$ ft