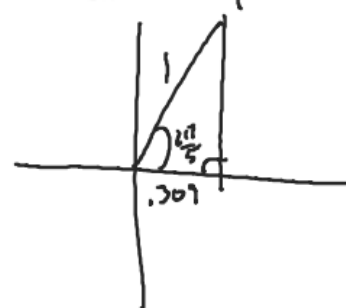


Evaluate using a calculator. Make sure your calculator is in the correct mode. Give answers to 3 decimal places and then draw the triangle that represents the situation.

A) $\sin 53^\circ$

B) $\cos \frac{2\pi}{5} = \underline{.309}$



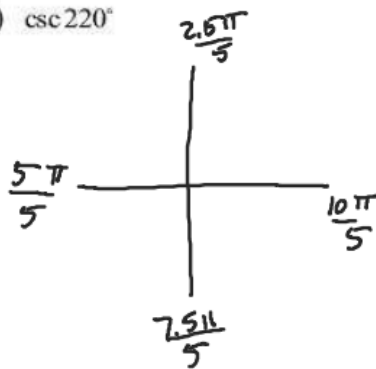
C) $\tan 154^\circ$

D) $\cot \frac{\pi}{9} = \underline{2.747}$

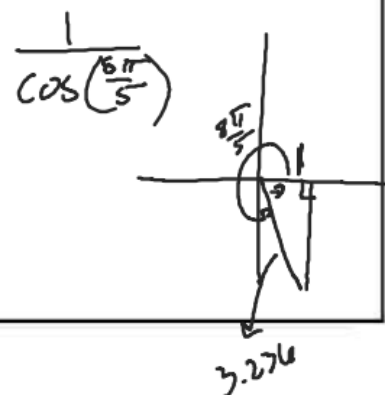


$\sec = \frac{1}{\cos}$

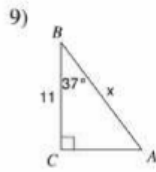
E) $\csc 220^\circ$



F) $\sec \frac{8\pi}{5} = \underline{3.236}$



Solve the triangle for the variable shown.



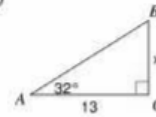
$$x(\cos 37^\circ) = \left(\frac{11}{x}\right)x$$

$$\frac{x \cos 37^\circ}{\cos 37^\circ} = \frac{11}{\cos 37^\circ}$$

$$x = \frac{11}{\cos 37^\circ}$$

$$\approx 13.773$$

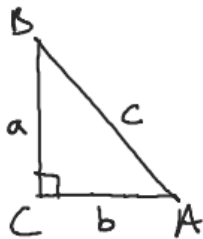
10)



$$\tan 32^\circ = \frac{x}{13}$$

$$x = 13 \tan 32^\circ$$

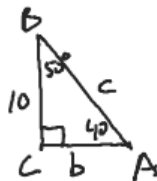
$$= 8.123$$



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

$$\alpha = 40^\circ \quad a = 10$$

$$\alpha = 40^\circ$$



$$\alpha = A$$

$$\beta = B$$

$$m\angle B = 50^\circ$$

$$b = \tan 50^\circ = \frac{b}{10}$$

$$b = 10 \tan 50^\circ$$

$$\approx 11.917$$

$$c = \cos 50^\circ = \frac{10}{c}$$

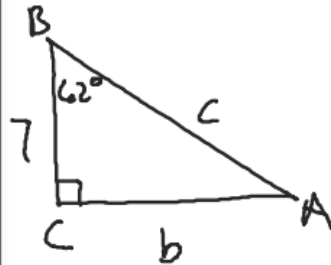
$$c = \frac{10}{\cos 50^\circ}$$

$$\approx 15.557$$

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

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

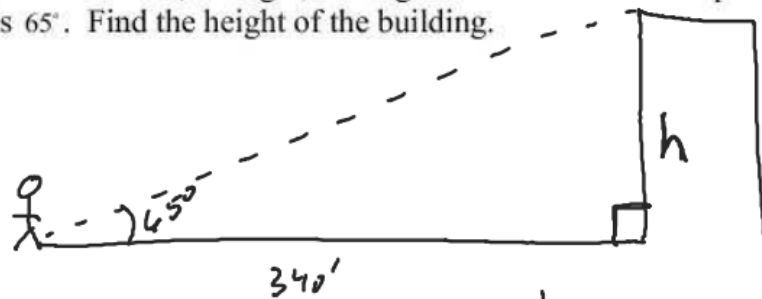
$$\beta = 62^\circ \quad a = 7$$



$$b = \tan 62^\circ = \frac{b}{7}$$
$$b = 7 \tan 62^\circ$$
$$\approx 13.165$$

$$c = \cos 62^\circ = \frac{7}{c}$$
$$c = \frac{7}{\cos 62^\circ}$$
$$= 14.910$$

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.



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

$$h = 340 \tan 65^\circ$$

$$h = 729.132'$$