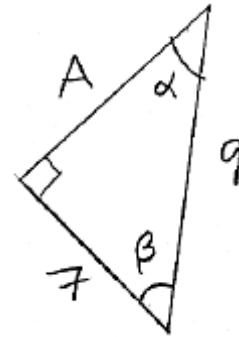


Instructions: No books or notes allowed. Do not talk to, give or receive help from anyone. Show all of your work.

1 [2 pts] Convert the angle $\alpha = 1.5$ to degree measure: $\alpha =$ _____ (2 decimal places)

2 [2 pts] The angle complementary to 16° is _____ (in degrees)

3 [4 pts] See the figure.
Give exact number answers, without variables.



a. $\tan \alpha =$ _____

b. $\cos \beta =$ _____

4 [4 pts] Using a calculator, $\sin(1.34) \approx$ _____ and $\tan(38^\circ) \approx$ _____ (2 decimal places)

5 [4 pts] You place a ladder on a window ledge that is 10 feet above the ground on a wall. If you want the ladder to make an angle of 60° with the flat ground, how far should the bottom of the ladder be from the base of the wall?

Answer: _____ feet from the wall.

6 [4 pts] For the angle θ pictured,

a. $\sin \theta$ is **positive** / **negative** / **zero** (circle one)

b. $\tan \theta$ is **positive** / **negative** / **zero** (circle one)

