***Hints***

Hint 1: Unfold the cylinder and think of it as rectangle

Hint 2: Draw out the distances between the ant and honey and form a triangle.

Hint 3: Fold the tip of the triangle that is 5 inches from the top over the top because the honey is half way around on the other side of the glass

***Solution***

a2+b2=c2

152+82=c2

$√289$=$√c^{2}$

17=c