Question:

A bat flying in a cave emits a sound and
receives its echo 0.3 s later.
How far away is the cave wall? Assume the
speed of sound to be 340 m/s.
Answer in units of m

Solution:

The distance that sound passes from bat to the cave wall and back is:

S (m) = 340 * 0.3 = 102

The distance from bat to the cave wall is half of it:

R (m) = 102/2 = 51

Answer: 51 meters