1. A bird that is flying parallel to the ground drops one of the berries that it is carrying. If the berry lands 2.7 seconds after the bird releases it, how high is the bird flying?

On these problems, show all of your work – include variable names and units!
Annotate the question with variable labels.
Use the GUESS method:
G - list the given information
U - list the unknown(s) that you need to find
E - Write out the formula
S - Substitute values into the formula
S - Solve!!

2. Next, determine where the berry falls (use the same bird flying at the same height from problem 1) if the bird is moving at 14.2 m/s relative the ground when it drops the berry. Find how far the berry moves horizontally as it falls.

3. A brisk wind blows acorns loose from an Oak tree. If the acorns is 17 meters above the ground when it starts to falls, how long until it strikes the ground?
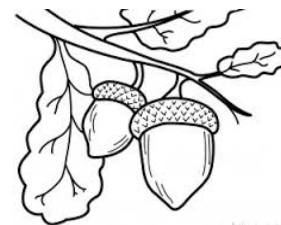
4. Continuing #3, what is the horizontal velocity of the acorn if it lands 37 meters from the tree?