Math Problem of the Week #20 Due Friday, March 25th, 2011

Hello Animal Explorers,

While visiting a rainforest in South America we come across a line of leafcutter ants. Leafcutters are separated into four categories, because of their sizes. Minims are the smallest ants at 3 mm long. They take care of the babies and the food. Minors attack enemies that get in the way of the foraging line. Minors are 7 mm long. Mediae are 11 mm long. They cut the leaves and bring the pieces back to the nest. Majors act as soldiers and are 16 mm long. They defend the nest from intruders, and clear things off the paths for the Mediae to use.

1. There is a crack in the ground 44 mm wide. There are 2 ants of each size near the crack and they need to use their bodies to make a bridge across it as fast as possible. <u>Which ants need to be used to make the bridge?</u>

2. Leafcutter ants can defoliate, (eat the leaves off of,) a fruit tree in 24 hours. <u>If a farmer has a grove of 36 trees, how long will it take before there are no more leaves on his trees?</u>

_____Days

Lottery # 20: Circle either the leaf being cut by the ant, for * or the leaves being carried by the ants for * *.



