

How Big is My Population?

Go to: http://mathbench.umd.edu/modules/env-science_sampling/page01.htm

Name: _____

- 1: **Counting Big Populations:** How do scientists estimate the size of a large population?
- 2: **Sampling on a grid:** To count the dandelions, we'll first create a grid, then use the computer's random number generator to tell us which grid squares to count. We'll do this 10 times, because, as you'll see, the counts in the different grid squares will vary a lot. After you count 10 squares, you'll use the average number per square to estimate the population of the entire lawn.

How many dandelions are there on the grid? _____

- 3: **Scaling it Up:** What does it mean that we scaled it up?
- 4: **Keeping it Random:** Why is it important to *randomly* select segments to count?
- 5: **When Size Matters:** What is the simplest way to determine the appropriate sample size?
- 6: **Bare Bones Sampling:** What is the difference between measuring abundance versus Presence/absence?
- 7: **Collecting P/A Data:** *Counting Moss..* How do we estimate sample size?
- 8: **Impervious Surface:** How do we estimate impervious surface? Explain.
- 9: **Getting Fancy:** What are the *steps* for conducting a simple transect?
- 10: **Try a Transect:**

Summary: *Explain what you learned by doing this activity*