

Name:

Date:

Hour:

AP Biology: Statistics in Biology

Statistics in Biology: Standard Deviation & Standard Error

Answer the following questions.

3. A botanist wanted to know if plants with mycorrhizae have a higher rate of respiration and photosynthesis than do plants without mycorrhizae. The data he collected is below. Determine the sample size, mean, standard deviation, and standard error for each data set.

Trial	Rate of Photosynthesis ($\mu\text{mol CO}_2$ consumed / sec)		Rate of Respiration ($\mu\text{mol CO}_2$ produced / sec)	
	Plants with Mycorrhizae	Plants without Mycorrhizae	Plants with Mycorrhizae	Plants without Mycorrhizae
1	15	12	14	5
2	14	11	16	8
3	12	13	15	7
4	13	14	13	6
5	14	12	15	8
n				
\bar{X}				
Standard Deviation				
Standard Error				