

Data Sets for Graphing Practice

Bio 111 Lab

1. A new compound, phenoketocaliodobutylol (PKCDB), was tested in clinical trials for efficacy in preventing or slowing tumor enlargement. Subjects received 1) no treatment; 2) a placebo; 3) either 5 or 10 mg doses of PKCDB; or 5 mg of propylguanicyanochloroaldyrene (PGCCA), an anti-tumor drug already approved and in common use. Tumor sizes were measured at the beginning and end of the treatment period (1 year).

Treatment	Increase in Tumor Size (%)
None	83
Placebo	78
5 mg PKCDB	54
10 mg PKCDB	31
5 mg PGCCA	24

2. The rate of the chemical reaction $A + B \rightarrow C$ was measured at different pH levels.

pH	Rate of Reaction (nanograms C produced per second)
1	3.7
3	4.2
5	12.4
7	28.1
9	13.5
11	5.7
13	4.8

3. The age structure of the lobster population in Oyster Cove was investigated.

Age Group (years old)	Number of Individuals
≤ 1	239
1-2	76
2-3	54
3-4	36
>4	14

4. Following an oil spill at a site on the bank of the Smith River, the polycyclic aromatic hydrocarbon (PAH) content of the river water ¼ mile downstream was monitored at regular timepoints.

Months After Spill	PAH Concentration in River Water Downstream (parts per million)
1	189
2	92
3	48
4	25
5	13
6	11
7	10

5. The PAH content of the river water was also measured ¼ mile upstream from the spill. Combine these data and those above in a single graph.

Months After Spill	PAH Concentration in River Water Upstream (parts per million)
1	6
2	7
3	8
4	5
5	7
6	6
7	8

6. Researchers tested whether the expression level of the ADH1 gene in the roots of a plant species changed in response to various abiotic stresses.

Treatment	ADH1 Expression Level (absolute microarray fluorescence units)
Control (no stress)	6915
Cold Stress	30483
Osmotic Stress	35222
Salt Stress	5662
Drought Stress	12906
Oxidative Stress	11522
Wounding Stress	30293