Name $\qquad$ Partner $\qquad$

## Situational Data

Directions: One partner will roll the dice and create a graph based on what was rolled, using the data for \#1. The other partner will choose and create a different graph with the same data. After \#l, the roles will reverse. Remember to title and label each graph!

1. A scientist made the following observations:

| Hour | Microorganisms |
| :--- | :--- |
| 1 | 2 |
| 2 | 4 |
| 3 | 8 |
| 4 | 16 |
| 5 | 32 |
| 6 | 128 |
| 7 |  |

How many microorganisms will there be in the 7th hour? Graph your prediction.

2. Results of the boys' high jump event at the track meet:

| Participant | Height (feet \& inches) |
| :--- | :--- |
| Jacob | $4^{\prime} 10^{\prime \prime}$ |
| Cole | $4^{\prime} 6^{\prime \prime}$ |
| Ben | $3^{\prime} 10^{\prime \prime}$ |
| Jeff | $2^{\prime} 10^{\prime \prime}$ |
| Kenny | $4^{\prime} 8^{\prime \prime}$ |
| Rico | $4^{\prime} 2^{\prime \prime}$ |


3. Planet distances, in Astronomical Units (AU), from the Sun:

| Planet | Distance (AU) |
| :--- | :--- |
| Mercury | 0.4 |
| Venus | 0.7 |
| Earth | 1.0 |
| Mars | 1.5 |
| Jupiter | 5 |
| Saturn | 10 |
| Uranus | 20 |
| Neptune | 30 |
| Pluto (minor planet) | 39.5 |


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

4. Growth of the Earth's human population:

| Year (A.D.) | Number of People <br> (in billions) |
| :--- | :--- |
| 1650 | .50 |
| 1750 | .70 |
| 1850 | 1.0 |
| 1925 | 2.0 |
| 1956 | 2.5 |
| 1976 | 4.0 |
| 1991 | 5.5 |
| 2000 | 6.0 |
| 2004 | 6.4 |


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

5. Major military and civilian casualties in World War II, by country:

| Country | Casualties |
| :--- | :--- |
| USSR | $21,300,000$ |
| China | $11,324,000$ |
| Germany | $7,060,000$ |
| Poland | $6,850,000$ |
| Japan | $2,000,000$ |
| Yugoslavia | $1,706,000$ |
| Rumania | 985,000 |


6. Countries with the largest population:

| Country | Population |
| :--- | :--- |
| China | $1,323,000,000$ |
| India | $1,128,000,000$ |
| United States | $303,000,000$ |
| Indonesia | $231,000,000$ |
| Brazil | $186,000,000$ |
| Pakistan | $162,000,000$ |
| Bangladesh | $158,000,000$ |



## Reflection:

1. Which graph was most useful overall? $\qquad$
2. Which graph would be most effective for the data in \#1 (time)? $\qquad$
3. Which graph do you have a hard time understanding? $\qquad$
