$\qquad$
Mr. Villegas
Date: $\qquad$

## In Need of Numbers

Aim/Essential Question: How do we graph?
Do now:
Draw a graph sketch of the pitch (low notes vs. high notes) of about 30 seconds of your favorite song throughout the course of the song. Sing the song quietly in your head as you draw the graph. (If you don't have a favorite song, choose a well-known song such as Twinkle, Twinkle.)

## Vocabulary/Concept Bank

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As we read aloud, underline any word you think might be important. Write a question mark next to anything you don't understand. Draw a box around the question or task you are being asked to complete, if any.

Graph sketches describe a situation, but the description is more complete when the graph includes numeric information. You can provide this information by putting a scale on each axis. The scale shows the numeric values that the points on each axis represent. To scale an axis, decide what range of values is appropriate for the situation and for the quantities involved. You also have to decide how to dis[lay the scale on each axis.

For each sketch below,
[3 Scale the axes with appropriate values.
[] Justify why your scales are reasonable and describe any assumptions you made.

| Scale the axes with appropriate values. |  |  | Justify why your scales are reasonable and describe any assumptions you made. |
| :---: | :---: | :---: | :---: |
| 1. | Number of wagons |    <br>    <br>    <br>    <br>    <br>    <br>    |  |

3. 

| 4. |  |
| :---: | :---: |
| 5. |  |

## Class Discussion

| What problems did you have <br> scaling the graphs? How did <br> you resolve them? |  |
| :--- | :--- |
| Is it okay if "10 days" and "10 <br> miles" are represented by <br> different lengths on the <br> axes in question 2? |  |
|  |  |

Summary

On a graph, the scale, $\qquad$ can be determined by
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