Graphing data assignment:

|  |
| --- |
| Note: I suspect that the easiest way make the graphs is to print out some 1-cm or 1/-inch grid paper from <http://incompetech.com/graphpaper/square.html> and make the graphs by hand and scan/photograph your graphs. If you’re feeling ambitious, you can probably get Excel to make the bar graphs (easy) and picture graphs (these instructions mostly work: <http://www.internet4classrooms.com/excel_picto_chart.htm> ). For the line plot/dot plot, you could probably do it by starting with an appropriate table in Word, and typing in X’s or O’s) |

1. This list shows people’s favorite pizza topping. Make a bar graph and a picture graph for this data, using a single unit scale

pepperoni

cheese

pepperoni

mushroom

cheese

cheese

mushroom

olive

cheese

cheese

pepperoni

cheese

pepperoni

cheese

pepperoni

cheese

mushroom

2. This list shows people’s favorite season. Make a scaled bar graph and a scaled picture graph for this data (using something other than a single unit scale). Show with a key or a frequency axis what the scale is for each graph.

fall

summer

summer

summer

winter

spring

summer

summer

spring

summer

summer

summer

fall

summer

summer

summer

spring

spring

3. This list shows people’s height measured to the nearest inch. Add your own height to the data, and graph the data with a dot plot/line plot.

66 65 62 65 70 69 68 66 64 67 66 70 69 64 64 69 64 65

4. This list shows the length of people’s foot measured to the nearest quarter inch (I have ordered them for you). Measure your own foot using a ruler, and add your data to the table. Graph the data with a dot plot/line plot.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 3/4 | 9 | 9 | 9 | 9 | 9 1/4 | 9 1/4 | 9 1/2 | 9 1/2 |
| 9 1/2 | 9 3/4 | 9 3/4 | 10 | 10 | 10 1/4 | 10 1/4 | 11 | 11 |

5. Give two more examples of category data that you could collect with a class of second or third graders.

6. Give two more examples of measurement data you could collect with a class of second or third graders.

7. For this bar graph showing the eye color of people in a class, categorize each question as being in one or more of these categories:

1. total number of data points
2. how many in a category
3. how many more or less are in one category than another (compare)
4. a put-together problem
5. a take-apart problem
6. a two-step compare problem

Questions:

1. How many fewer students are there who have brown or hazel eyes than have blue or green eyes?
2. How many students are in the class?
3. How many students have green or hazel eyes?
4. How many more students have blue eyes than green eyes?
5. How many students have brown eyes?

8. For this graph of the pets that students in a class have, write a word problem of the following types:

1. Total number of data points
2. How many in a category
3. How many more or less are in one category than another (compare
4. Put-together
5. A two-step compare problem

9. What’s missing in this graph?

10. What’s missing in this graph?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| X |  | X  X  X | X  X  X  X | X  X  X  X  X  X | X  X | X | X  X |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

11. What’s wrong with this graph?

**Handspan lengths**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | X  X | X  X | X  X  X  X | X | X  X  X | X  X | X  X  X | X | X  X  X  X | X  X  X | X |
| 13.5 | 19 | 19.5 | 20 | 20.5 | 21 | 21.5 | 22 | 22.5 | 23 | 23.5 | 24 |

**Span in cm**

12. What’s wrong with this graph?

