

Day 7

1-6

Bar Graphs and Line Graphs

Goals

- Interpret and construct bar graphs and line graphs
- Make predictions from bar graphs and line graphs

RETEACHING 1-6

BAR GRAPHS AND LINE GRAPHS

Example 1

Use the bar graph to answer the following questions.

a. In which years did more than 120 banks fail?
 b. About how many more banks failed in 1993 than in 1994?

Solution

a. 1991 and 1992 b. $40 - 13 = 27$

$40 + 30 = \frac{90}{2}$
 $= 45$

Year	Number of Banks
1991	130
1992	140
1993	40
1994	13
1995	10
1996	10
1997	10

Example 2

Use the line graph to answer the questions.

a. In which year were the most imported cars sold?
 b. About how many were sold in 1993?

Solution

a. 1991 b. about 1.8 million

Year	Number of Cars (in millions)
1991	2.0
1992	1.8
1993	1.5
1994	1.2
1995	1.0
1996	1.0
1997	1.0

Use line graphs to display data over a period of time.

BUILD UNDERSTANDING

Bar Graph

In a bar graph, horizontal or vertical bars display data. A scale is used to show intervals. To read a bar graph, look at the top edge of each bar. Match that edge with the number on the scale to find the value of that bar.

Line Graph

On a line graph, points representing data are plotted, then connected with line segments. Because the points are connected in sequence, a line graph shows trends, or changes, in data over a period of time.

EXERCISES

Use the bar graph for Exercises 1-3.

1. Which two school years had about the same number of students per computer? 94, 95 and 96

2. How many students were there per computer in '92-'93? 16

3. How many more students were there per computer in '95-'96 than in '96-'97? 2

Use the weather graph for July to answer Exercises 4-6.

4. What was the lowest high temperature of the month? about 65

5. On how many days was the high temperature above 90°? 9

6. What is the difference between the highest and the lowest high temperature? 35°

Answer each question using Sarah's growth chart.

1. What was Sarah's height at age 4? 39 in

2. How much taller was Sarah at age 10 than at age 5? 16-18

3. Between which two consecutive years did Sarah grow the most? 9-10, 0.1

4. How tall do you think Sarah will be when she is 11 years old?

3 FT 3 in

$$\begin{array}{r} 10 \overline{)39} \\ \underline{-36} \\ 3 \end{array}$$

Use the bar graph to answer the following questions.

a. Which bar represents the longest river? About how long is that river?

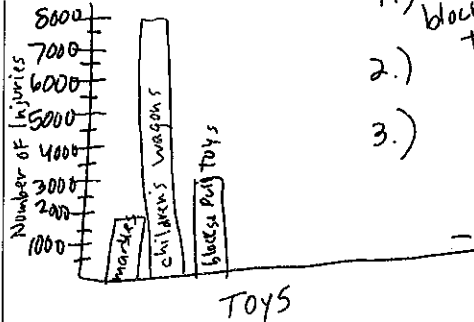
b. About how much longer is the Nile than the Yangtze?

c. Which rivers are over 5400 km long?

Class Example: Make this data into a bar graph.

Children's Injuries Caused by Toys

Toy	Number of Injuries
Marbles	1845
Children's wagons	7935
Blocks and pull toys	2799
Nonwheeled riding toys	4022
Wheeled riding toys	6553
Balloons	1913
Toy guns	2581
Flying toys	4263



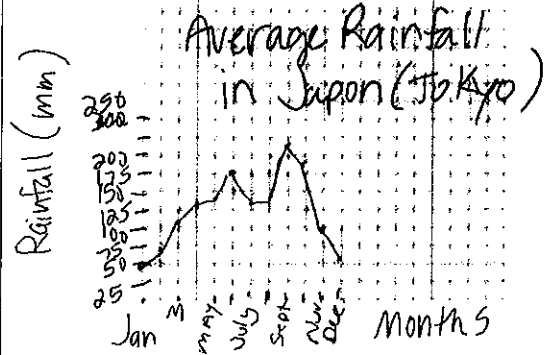
1.) what is the diff. between blocks/pull toys/ toy guns
 2.)
 3.)

Class Example: Make this data into a line graph.

Average Monthly Rainfall in Tokyo, Japan

Month	Jan.	Feb.	Mar.	Apr.	May	June
Rainfall (millimeters)	49.9	71.5	106.4	129.2	144.0	176.0

Month	July	Aug.	Sept.	Oct.	Nov.	Dec.
Rainfall (millimeters)	135.0	148.5	216.4	194.1	96.5	54.4



Bar and line graph gallery.

Create either a bar or line graph with TITLE, LABELS and appropriate tick marks.

Create three questions about your graph that your classmates will answer.

