### Lesson 1 Practice Problems

1. Here is data on the number of cases of whooping cough from 1939 to 1955.

| * year
 | * number of cases
 |
| --- | --- |
| * 1941
 | * 222,202
 |
| * 1950
 | * 120,718
 |
| * 1945
 | * 133,792
 |
| * 1942
 | * 191,383
 |
| * 1953
 | * 37,129
 |
| * 1939
 | * 103,188
 |
| * 1951
 | * 68,687
 |
| * 1948
 | * 74,715
 |
| * 1955
 | * 62,786
 |
| * 1952
 | * 45,030
 |
| * 1940
 | * 183,866
 |
| * 1954
 | * 60,866
 |
| * 1944
 | * 109,873
 |
| * 1946
 | * 109,860
 |
| * 1943
 | * 191,890
 |
| * 1949
 | * 69,479
 |
| * 1947
 | * 156,517
 |

* 1. Make a new table that orders the data by year.
	2. Circle the years in your table that had fewer than 100,000 cases of whooping cough.
	3. Based on this data, would you expect 1956 to have closer to 50,000 cases or closer to 100,000 cases?
1. In volleyball statistics, a block is recorded when a player deflects the ball hit from the opposing team. Additionally, scorekeepers often keep track of the average number of blocks a player records in a game. Here is part of a table that records the number of blocks and blocks per game for each player in a women’s volleyball tournament. A scatter plot that goes with the table follows.

| * blocks
 | * blocks per game
 |
| --- | --- |
| * 13
 | * 1.18
 |
| * 1
 | * 0.17
 |
| * 5
 | * 0.42
 |
| * 0
 | * 0
 |
| * 0
 | * 0
 |
| * 7
 | * 0.64
 |

* 
* Label the axes of the scatter plot with the necessary information.
1. A cylinder has a radius of 4 cm and a height of 5 cm.
	1. What is the volume of the cylinder?
	2. What is the volume of the cylinder when its radius is tripled?
	3. What is the volume of the cylinder when its radius is halved?
* (From Unit 5, Lesson 18.)



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