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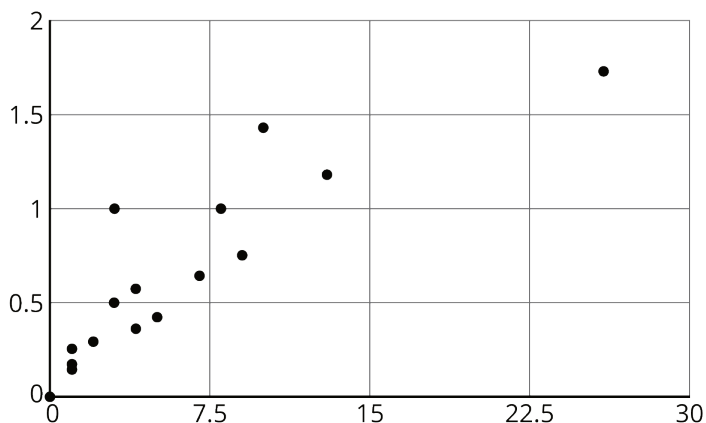
1. Here is data on the number of cases of whooping cough from 1939 to 1955.

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

a. Make a new table that orders the data by year.

b. Circle the years in your table that had fewer than 100,000 cases of whooping cough.

c. Based on this data, would you expect 1956 to have closer to 50,000 cases or closer to 100,000 cases?

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2. 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.

3. A cylinder has a radius of 4 cm and a height of 5 cm.

   a. What is the volume of the cylinder?

   b. What is the volume of the cylinder when its radius is tripled?

   c. What is the volume of the cylinder when its radius is halved?

   (From Unit 5, Lesson 18.)

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