Answer on Question #61541 – Math – Statistics and Probability

Question

4. In a study on survival time for nine patients following a new treatment for AIDS. The time in months were given thus: 24, 12, 8, 20, 3, 18, 24, 25, and 27. Determine the mode for the given data.

Solution

24 is the mode, since it occurs twice and the rest of the outcomes occur only once.

Answer: 24.

Question

5. In a study on survival time for nine patients following a new treatment for AIDS. The time in months were given thus: 24, 12, 8, 20, 3, 18, 24, 25, and 27. Determine the range for the given data.

Solution

The range is the difference between the highest and the lowest values. In our case the range is equal to $27 - 3 = 24$.

Answer: 24.

Question

6. In a study on survival time for nine patients following a new treatment for AIDS. The time in months were given thus: 24, 12, 8, 20, 3, 18, 24, 25, and 27. Determine the median for the given data.

Solution

To find the median we first sort the data: 3, 8, 12, 18, 20, 24, 24, 25, 27. There is an odd number $n = 9$ of values, so we need the middle value of the sorted list. The median is the fifth of them, which is 20.

Answer: 20.