Reading a Pie Chart

A. Choose the correct answer:

1. In a pie chart, if a sector is 90°, it represents what fraction of the whole.

a) $\frac{1}{2}$ b) $\frac{1}{3}$

c) $\frac{1}{4}$ d) $\frac{1}{5}$

2. If a sector in a pie chart is larger than another, it means

a) It represents a smaller quantity

b) It represents an equal quantity

c) It represents a larger quantity

d) It has no meaning

3. The total angle at the center of a pie chart is always

a) 90° b) 180°

c) 270° d) 360°

4. To find the percentage represented by a sector of 72°, you would calculate

a

)

c

5. In a pie chart, if a sector is labeled 25%, the central angle is.

a) 90° b) 60°

c) 45° d) 30°

B. Write the Missing Terms to Complete the Sentences:

1. A pie chart divides the data into _____ parts.
2. The angle of each sector in a pie chart is proportional to its _____.
3. A sector representing $\frac{1}{2}$ of the total will have an angle of _____ degrees.
4. In a pie chart, the sum of the angles of all sectors equals _____ degrees.
5. To read a pie chart, one needs to understand the relationship between the angles and the _____ quantities.

C. Figure out the answers to these questions:

1. If a pie chart shows that a sector has a central angle of 144°, what fraction of the total does it represent.
2. A pie chart shows the favorite sports of students with sectors 120°, 90°, and 150°. Which sport is most popular?
3. If a sector represents $\frac{1}{5}$ of the total data, what is its central angle and percentage?

)

4. The pie chart shows that the sales of Product A are 90°, Product B are 60°, and Product C are 210°. Which product has the least sales?
5. Why is it important to know that the whole pie chart represents 360° when reading data?

D. Mark each sentence with a True (✔) or False (✗):

1. In a pie chart, each sector's size is unrelated to the quantity it represents. ___
2. A pie chart representing sales data must have all sectors adding up to 360°. ___
3. A sector with a 180° angle represents half of the total data. ___
4. Reading a pie chart involves comparing the size of sectors. ___
5. The sum of percentages of all sectors in a pie chart is always 100%. ___

E. Challenge yourself with these questions:

1. Find the fraction and percentage represented by a sector of 90° in a pie chart.
2. How would you determine which category is the largest from a given pie chart?
3. A sector representing 120° is shown in a pie chart. What percentage of the total does it represent?
4. What should you verify after reading all sectors of a pie chart?
5. If two sectors in a pie chart are equal, what can you say about their corresponding quantities.