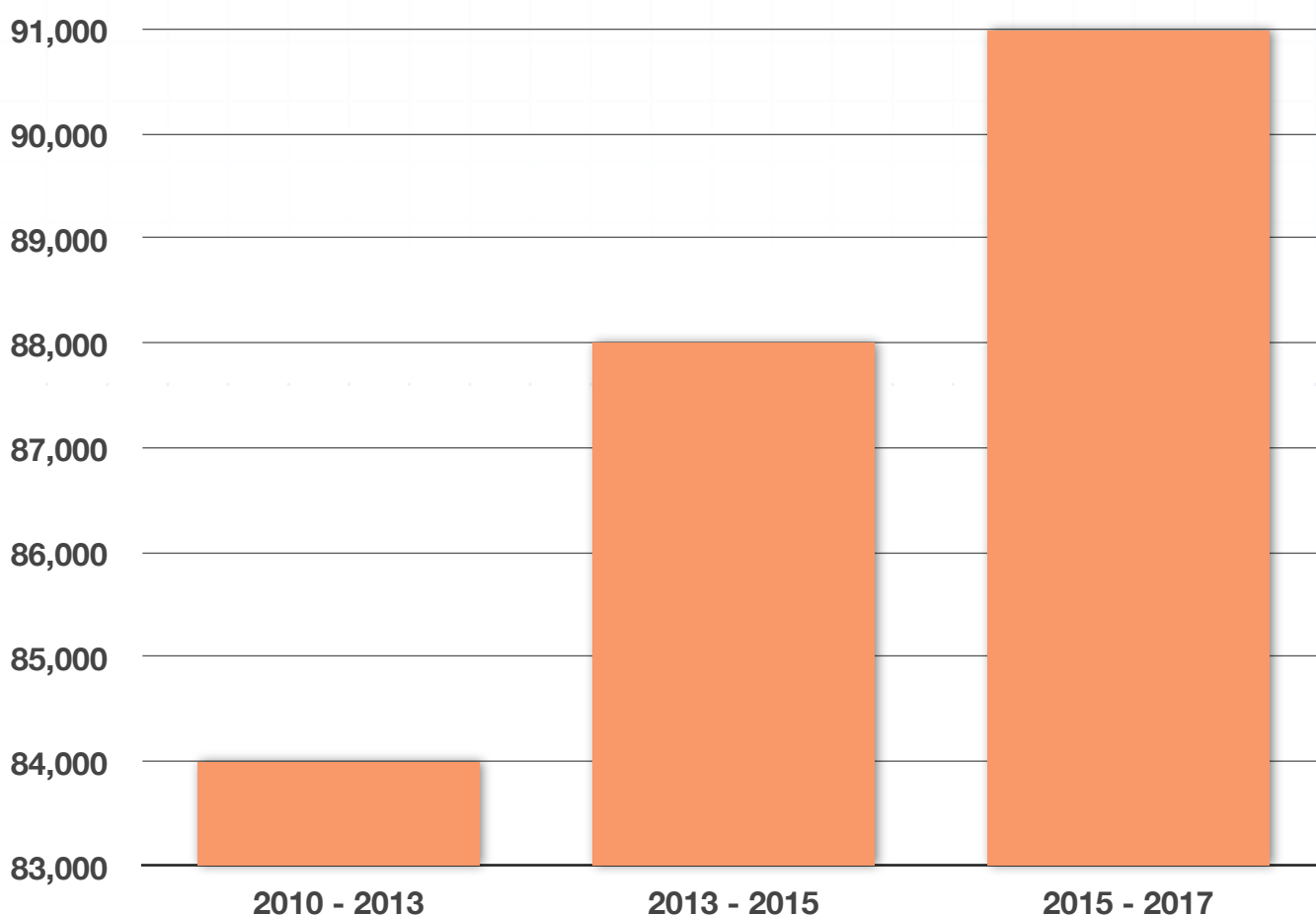


Topic: Bar graphs and pie charts

Question: Which statements can we know are true about the bar chart for total sales?

- I. Each year from 2010 to 2017, total sales have increased.
- II. The data on the horizontal axis should have been organized from largest to smallest.
- III. The labels on the horizontal axis have resulted in a misleading bar chart.



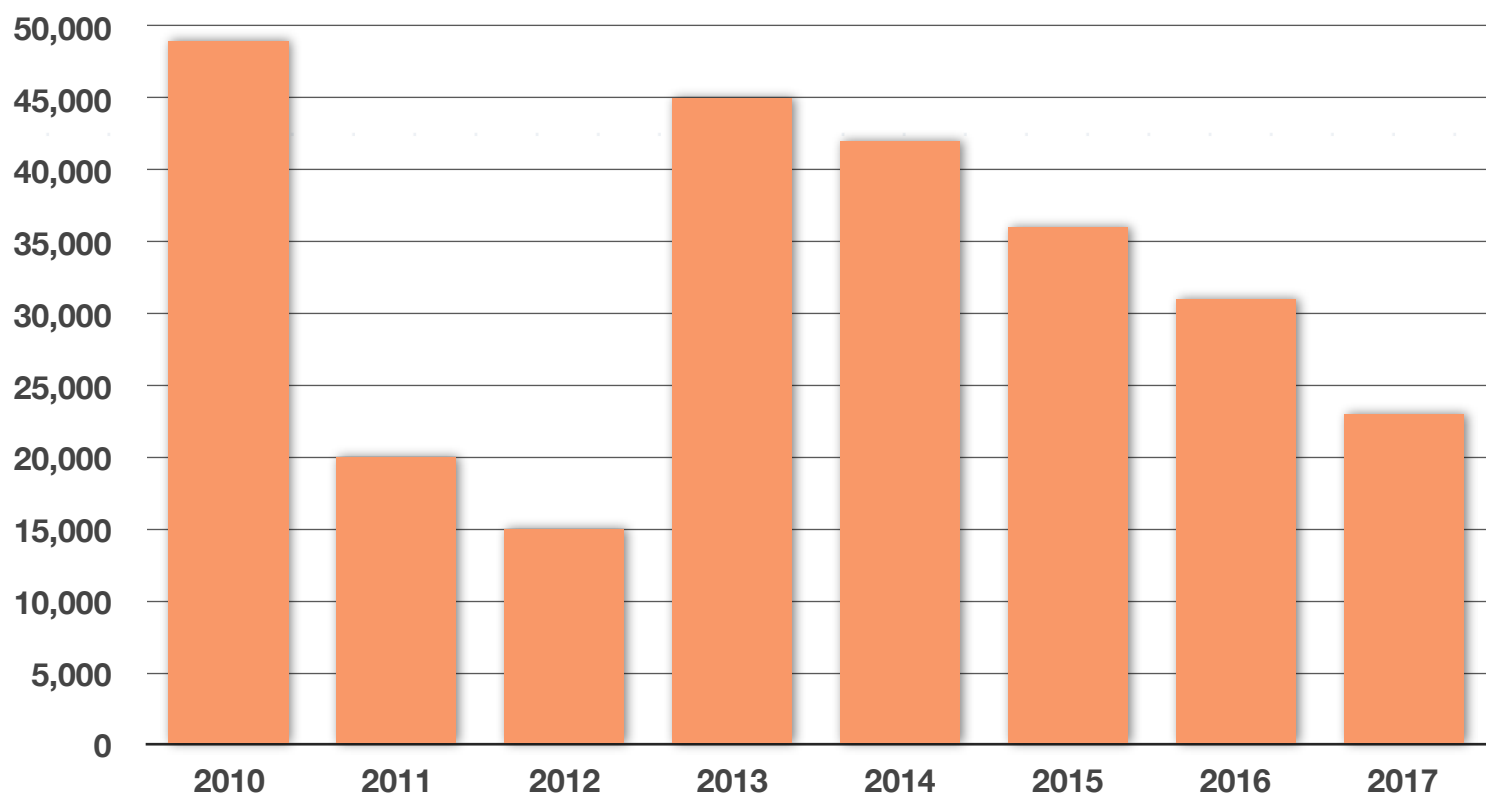
Answer choices:



- A I only
- B II only
- C III only
- D I and III only

Solution: C

The different intervals for the years on the horizontal axis make it impossible to get an inference from the data. Some of the years even overlap. Say the company broke down their total sales by year instead, and the bar chart actually looked like this:

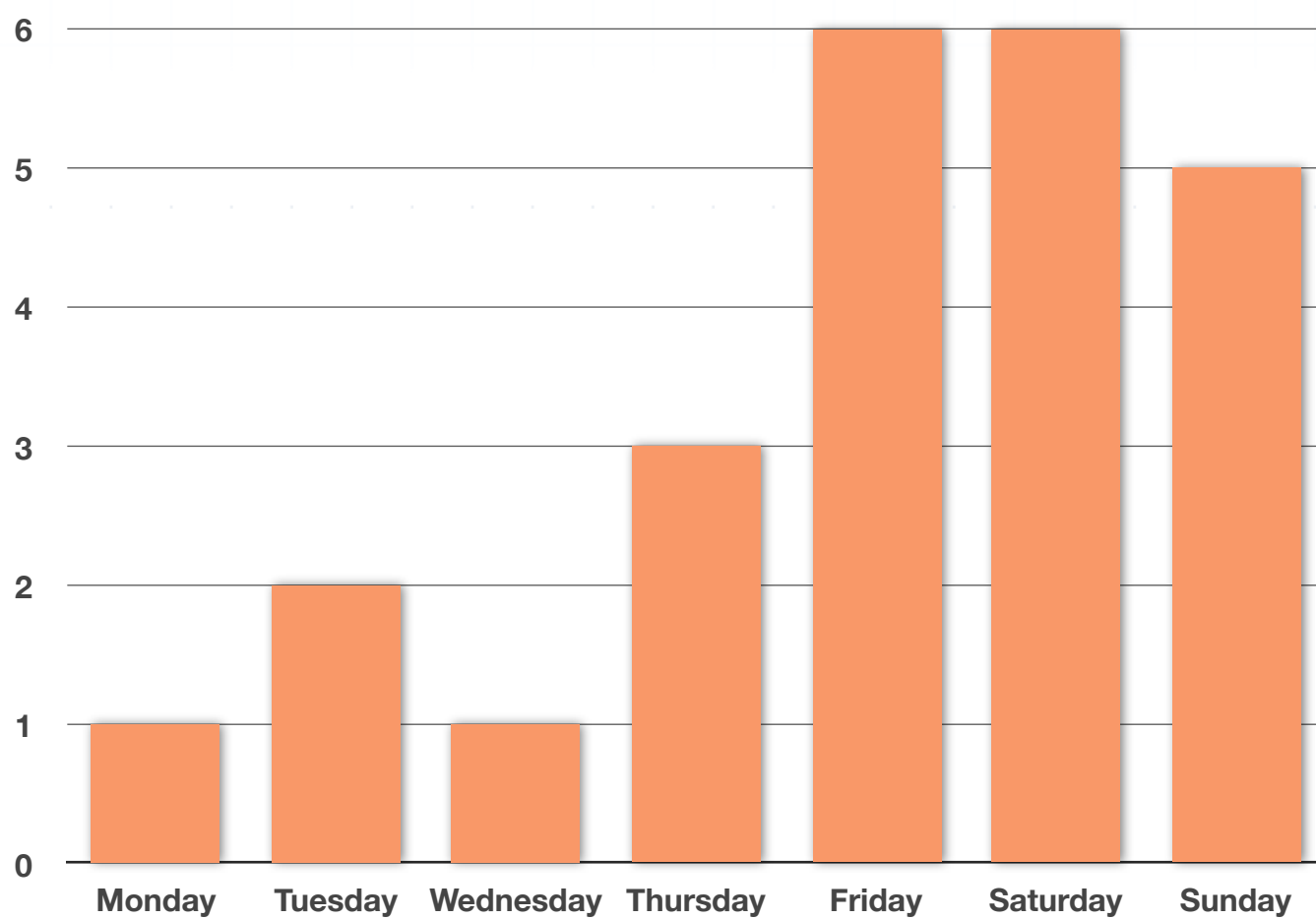


Grouping this chart together could result in the misleading bar chart you saw first, and lead consumers to think total sales were increasing, as opposed to decreasing year after year.



Topic: Bar graphs and pie charts**Question:** Which day of the week was graphed incorrectly?

| Day | Rainfall (in cm) |
|-----------|------------------|
| Monday | 1 |
| Tuesday | 3 |
| Wednesday | 1 |
| Thursday | 3 |
| Friday | 6 |
| Saturday | 6 |
| Sunday | 5 |



Answer choices:

- A Monday
- B Tuesday
- C Wednesday
- D Thursday

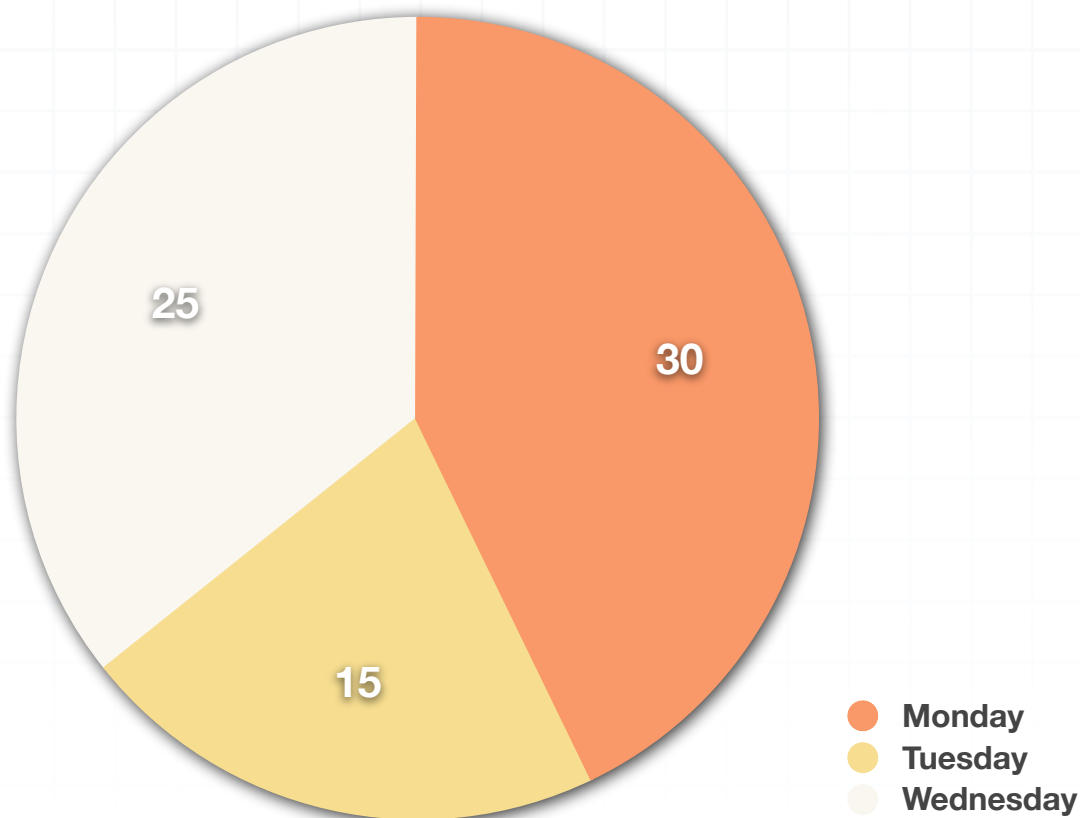
Solution: B

The table says that it rained 3 cm on Tuesday. On the bar graph it says that it rained 2 cm on Tuesday. The data should be the same between the table and the bar graph, so Tuesday was graphed incorrectly.



Topic: Bar graphs and pie charts

Question: In the pie chart for ice cream cone sales by day, to the nearest tenth of a percent, what percentage of total sales were made on Monday?

**Answer choices:**

- A 21.4 %
- B 30.0 %
- C 35.7 %
- D 42.9 %



Solution: D

To create a pie chart, the data is divided into percentages to break up the circle. The total ice cream sales for Monday, Tuesday, and Wednesday are

$$30 + 15 + 25 = 70$$

and there were 30 ice cream cones sold on Monday. The percentage of ice cream cones sold on Monday is

$$\frac{30}{70} \cdot 100 = 42.9 \%$$

