Just In Time Quick Check
Standard of Learning (SOL) 1.12b

Strand: Probability and Statistics

Standard of Learning (SOL) 1.12b
The student will read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary more, less, fewer, greater than, less than, and equal to.

Grade Level Skills:
- Analyze information displayed in tables, picture graphs, and object graphs (horizontally or vertically represented):
  - Read the graph to determine the categories of data and the data as a whole (e.g., the total number of responses) and its parts (e.g., 15 people are wearing sneakers); and
  - Interpret the data that represents numerical relationships, to include using the words *more, less, fewer, greater than, less than,* and *equal to*. (b)

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:
- VDOE Mathematics Instructional Plans (MIPS)
  - 1.12ab - Data Collection (Word) / PDF Version
- VDOE Word Wall Cards: Grade 1 (Word) | (PDF)
  - Picture Graph
  - Table
  - Tally marks

Supporting and Prerequisite SOL: 1.2b, 1.12a, K.2a, K.2b, K.11a

SOL 1.12b - Just in Time Quick Check

1. Mrs. Morgan asked her students what they would like to order for lunch and created the following picture graph. Use the picture graph to answer the questions.

Lunch Orders

Pizza	🍕 🍕 🍕 🍕 🍕
Hot dog	🌭 🌭 🌭
Burger	🍔 🍔 🍔 🍔
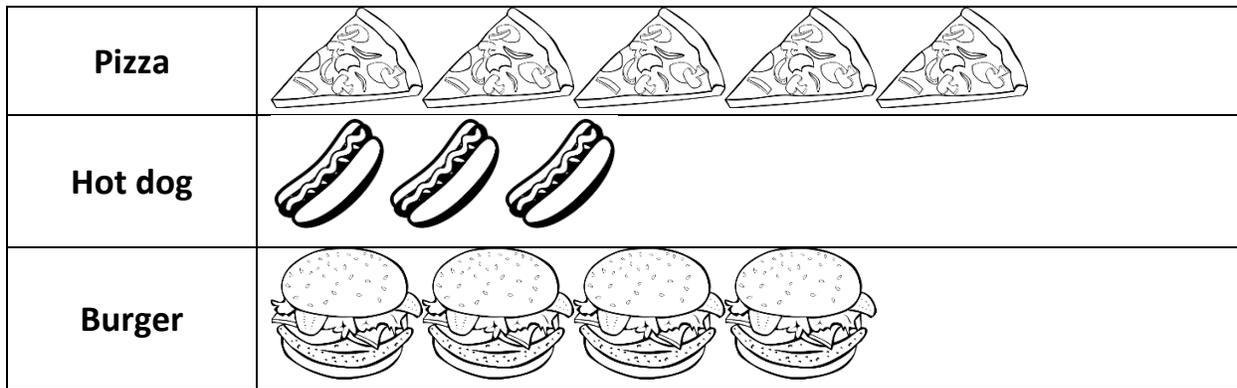
How many students placed a lunch order? _____

Which food has more orders than burgers? _____

Which food has fewer orders than burgers? _____

2. Mrs. Morgan also asked her students what type of juice they would like with their lunch. Look at the table and use it to answer the questions.

Types of Juice

Orange Juice	Apple Juice	Grape Juice
3	7	2

_____ juice is liked more than _____ juice.

_____ juice is liked less than _____ juice.

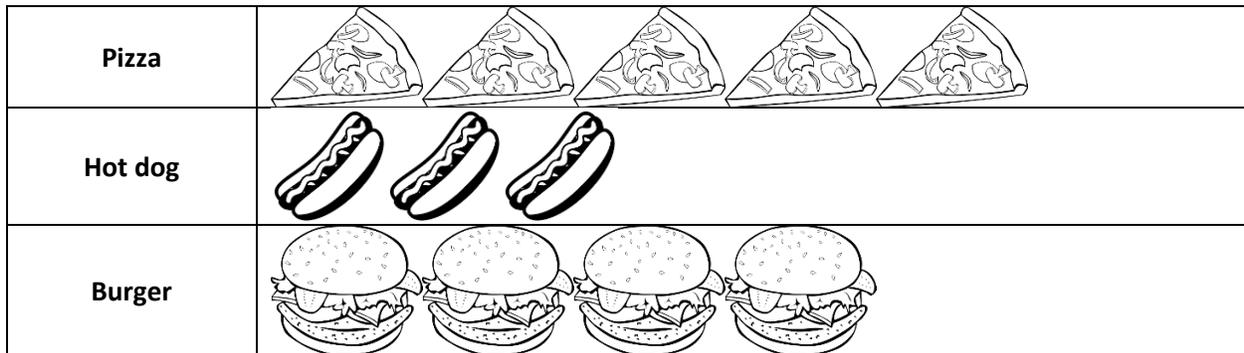Apple juice is liked by _____ people.

SOL 1.12b - Just in Time Quick Check Teacher Notes
Common Errors/Misconceptions and their Possible Indications

1. Mrs. Morgan asked her students what they would like to order for lunch and created a picture graph. Use the picture graph to answer the questions.

Lunch Orders

Pizza	🍕🍕🍕🍕🍕
Hot dog	🌭🌭🌭
Burger	🍔🍔🍔🍔

How many students placed a lunch order? _____

Students may say 5, 3, or 4 for this question and not understand that they need to count all the lunch orders to see how many people voted. They may just count the one they consider their favorite. This student may need more practice with making and reading picture graphs with the whole class and in small groups. Making object graphs with concrete items, and then translating that data to a picture graph, followed by classroom discourse focused on what information a graph tells us, will serve to strengthen students' ability to answer questions related to graphs.

Which food has more orders than burgers? _____

The student may pick hot dog as the answer. This student may not have an understanding of more and less. These students will benefit from additional opportunities to hear and use the vocabulary associated with interpreting data including more, less, fewer, greater than, less than, and equal to.

Which food has fewer orders than burgers? _____

Students who choose pizza as the answer may not have an understanding of more and less. They may need additional experiences building sets that contain more or less than other sets.

2. Mrs. Morgan also asked her students what type of juice they would like with their lunch. Look at the table and use it to answer the questions.

Types of Juice

Orange Juice	Apple Juice	Grape Juice
3	7	2

_____ juice is liked more than _____ juice.

_____ juice is liked less than _____ juice.

Apple juice is liked by _____ people.

Some students may be able to identify which juice had the most votes but are unable to write a comparison sentence while others may confuse more than and less than. These students need opportunities to compare data displayed in charts and in object and picture graphs using comparison sentences. It will be beneficial to provide opportunities for these students to engage in discourse focused on comparing data and recording more than, less than sentences. Some students may also benefit from using concrete objects to help when comparing numbers.