| K(2) **Number and operations**. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system.	K(2)(G) The student is expected to compare sets of objects up to at least 20 in each set using comparative language.

Materials
- Three pieces of colored paper
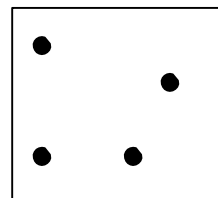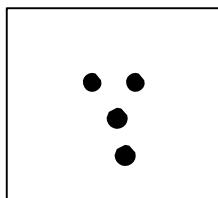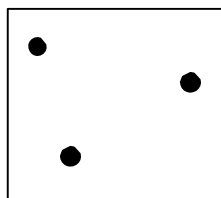- Approximately 20 counters

Procedure: Arrange sets of counters, as shown below, on a different pieces of colored paper.
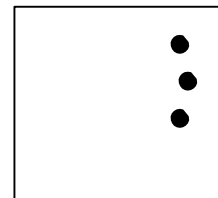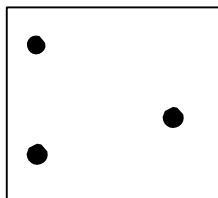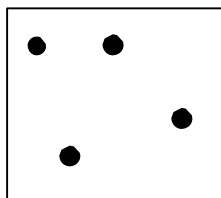
1.
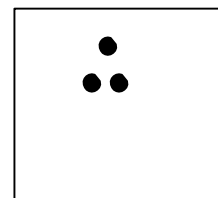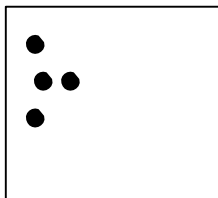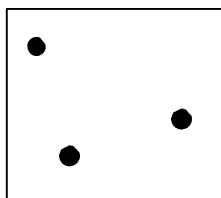
Which set has more objects?

2.

Which set has fewer objects?

3.

Which sets have the same number of objects?

This activity may be repeated using different numbers of objects up to 10.

Check Student's Responses:	Check Student's Strategies:
1. The student identified: □ The set with more objects □ The set on which the objects were most spread out □ The set with less objects □ Other:	1. The student: □ Counted each object on each mat □ Recognized the quantity without counting (subitizing) □ Other:
2. The student identified: □ The set with less objects □ The set on which the objects were least spread out □ The set with more objects □ Other:	2. The student: □ Counted each object on each mat □ Recognized the quantity without counting (subitizing) □ Other:
3. The student identified: □ The sets with the same number of objects □ Two sets not having the same number of objects □ Other:	3. The student: □ Counted each object on each mat □ Recognized the quantity without counting (subitizing) □ Other:

Notes:

K(2)(G) The student is expected to compare sets of objects up to at least 20 in each set using comparative language.	**Possible interpretations, issues to follow up on, and implications for teaching**

What did you observe?

- The student **counted each object in each set and made comparisons accurately.** He or she may be ready to compare sets of objects based on quantity.

- The student **counted each object in each set but did not always make comparisons accurately.** The student may have correctly counted each object in each set, but still declared that the set of objects most spread out was the most. You may need to determine:
  - The student's understanding of cardinality (the last number counted in a set of objects is equal to the number of objects in the set).
  - The student's understanding of conservation (the number in a set remains the same regardless of the arrangement or order).

  To assess this understanding, ask the student to count the objects, then move the objects around before asking the student to tell you the number of objects in the set. You may find that many students insist on counting and recounting the objects even though none were added or taken away from the set.

  A teaching strategy may include asking students to share their reasoning after being asked to count a set of objects placed in a variety of positions.

- The student **did not count objects aloud**. Consider whether or not he or she:
  - Mentally counted the objects.
  - Made judgments based on the amount of space each set of objects covered, rather than making the comparison based on the number of objects in each set.

  A teaching strategy may include providing the student with experiences comparing sets of objects that take up different amounts of space.

- If **no strategies were observed**, you might:
  - Ask the student how he or she decided.
  - Look for additional opportunities to determine if the student understands mathematical language such as more, same, and less.

  More than and same as are usually understood before less than. Modeling this mathematical language in various contexts such as giving the student three objects and ask them to create a set with two more objects.