



3: Quarter Sorter



OBJECTIVE:

Students will use various sorting rules to sort 1999, 2000, and 2001 quarters and then graph their results.



MATERIALS:

- Two large pieces of yarn, each joined at the ends to make a circle
- Index cards
- "Quarter Sorter" work page (page 12)
- Reproducible 50 State Quarters™ Program Coin Sheets (pages 29 and 30)
- "Quarters Count!" work page (page 13)
- Pencils
- Glue
- Scissors
- Crayons or markers



PREPARATIONS:

- Copy, enlarge, cut out, and laminate 1999, 2000, and 2001 Reproducible 50 State Quarters™ Program Coin Sheets (pages 29 and 30, for class demonstration).
- Copy 1999, 2000, and 2001 Reproducible 50 State Quarters™ Program Coin Sheets (pages 29 and 30), one set per student (for student activity).
- Copy "Quarter Sorter" and "Quarters Count!" work pages (pages 12 and 13), one of each per student.
- Place yarn circles on floor to make Venn diagram.



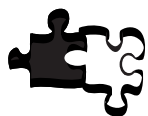
GROUPING:

- Whole group
- Groups of 2



CLASS TIME:

- 1-2 class periods



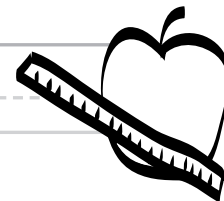
CONNECTIONS:

- Math
- Social Studies



TERMS and CONCEPTS:

- Sort
- Rule
- Venn diagram
- Graph



Sorting Items Using a Venn Diagram and Graphing Results



STEPS:

1. Gather students on the floor, forming a circle around the Venn diagram.
2. Introduce or review the purpose of the Venn diagram. Briefly explain that you will be using the Venn diagram to sort quarters.
3. Lay the 15 enlarged quarters on the floor. Ask students what they notice about the quarters. Guide them in sharing details found on each quarter and determining characteristics that are the same and different between the quarters.
4. Remind students that you will use the two circles of the Venn diagram to sort the quarters. Using a very simple sorting rule (e.g., People/No People or Trees/People), begin placing quarters in the Venn diagram.
5. Invite volunteers to determine your sorting rule by asking, "Why have I placed these quarters in separate circles?" Continue adding quarters until a student volunteers, and then invite him/her to add another quarter to the diagram without explaining the rule. Have students continue to add quarters to the diagram until all of the quarters have been placed.
6. When all quarters have been placed in the Venn diagram, call on a student to explain the rule. Write the categories on two index cards and place them next to the appropriate circles.
7. Repeat steps 4, 5, and 6 as time allows, using different sorting rules. Allow students to invent rules and begin the Venn diagram.
8. After several sorting rules have been discussed, assign partners and hand out the "Quarter Sorter" work page (page 12) and a copy of the 1999, 2000, and 2001 quarters sheets to each pair. Assign (or have students vote on) a rule they will use to sort their quarters and complete the work page. Students should label each circle with the appropriate rule, cut out quarters from the coin sheets, and paste them in the correct place on the Venn diagram.
9. Hand out the "Quarters Count!" work page (page 13). You may need to review graphing if this concept is new for the students. As a class, count the number of quarters that fit the rules and ask them to color in that many blocks on their graph.



ENRICHMENT/EXTENSIONS:

Students can sort other objects using Venn diagrams. Before labeling the diagram, they can challenge classmates or family members to figure out their sorting rules.

Students can practice graphing the results of their own sorting activities.

Name _____

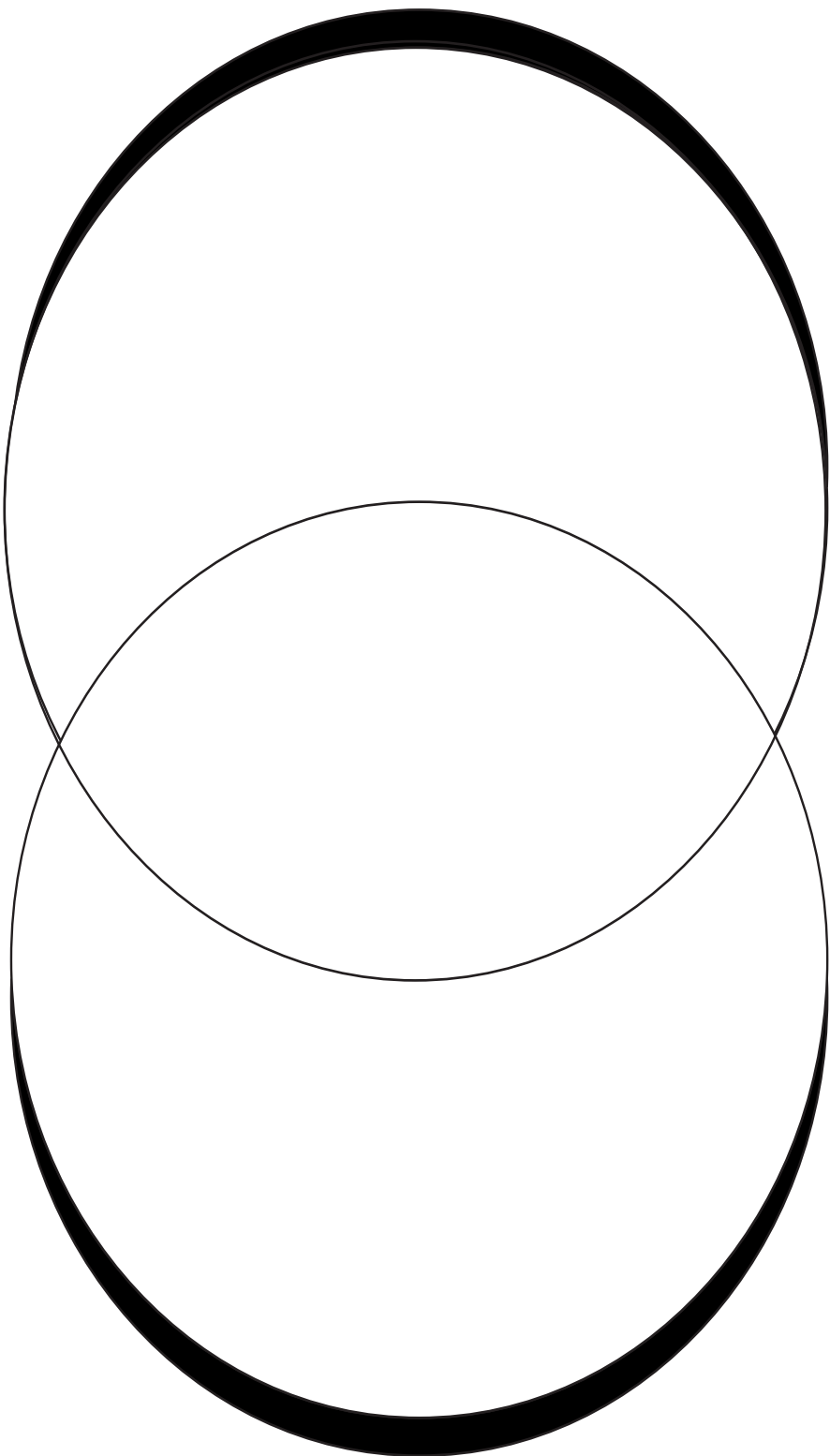
Date _____



Quarter Sorter

DIRECTIONS:

Cut and paste the quarters in the Venn diagram.
Write your sorting rules below.



Rule A _____

Rule B _____

No Match _____

Name _____

Date _____



Quarters Count!

DIRECTIONS:

Using data from your Venn diagram, record how many quarters fit each rule.

