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staying ⁹ ³ Centered ⁵

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Topics

Money/Number/Data

Key Questions

1. What is the value of each of our coins?
2. What coins combine to make 32 cents?
3. What number comes after five?
4. Do we have more yellow or red ladybugs?

Learning Goals

Students will:

- match the correct coin with its value and name,
- find a collection of coins that equals a specific amount of money,
- use number trains to count up from one to 10 and down from 10 to one, and
- compare two sets of objects to determine which they have more of.

Guiding Document

NCTM Standard 2000*

- *Count with understanding and recognize “how many” in sets of objects*
- *Sort, classify, and order objects by size, number, and other properties*
- *Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections*
- *Describe parts of the data and the set of data as a whole to determine what the data show*

Math

Number sense

Counting

Money

Graphing

Integrated Processes

Observing

Comparing and contrasting

Classifying

Collecting and recording data

Materials

For Center One:

coin purse or wallet (see Management 2)

two half-dollars

two quarters

two dimes

two nickels

two pennies

two dollars

pig cards

For Center Two:

6 small containers with lids (see Management 3)

pig labels

large collection of coins (see Management 4)

For Center Three:

train track

number trains

For Center Four:

egg carton

yellow and red ladybugs (see Management 6)

three re-closable bags (see Management 7)

Background Information

Math learning centers are a great resource for teachers. They provide an excellent option for developing math skills. They break up the normal routine by allowing students to rotate through different stations. They also make the best of limited resources and can be used to help meet diverse needs of students in the classroom through careful planning of which students visit each type of station. Through the use of centers, students are able to display their individual abilities, and teachers are often able to spot problems that may not otherwise be noticed.

The centers included in this activity are designed to motivate students; they are fun and interesting and will give them an opportunity to see math in action.

Management

1. The money used at *Centers One* and *Two* can be real or play money.
2. At *Center One* a real purse or wallet can be used. If you prefer to use the paper purse included in the activity, laminate, cut out, fold, and attach pieces of Velcro™ around the open edges so that it will hold the cards and money and can be easily opened by the children. Copy a set of pig cards on card stock and laminate for extended use.

3. Prior to presenting *Center Two*, collect six containers with lids than can easily have an opening cut in them. Small cylindrical chip containers, butter tubs, and small plastic storage containers all work well. Prepare the containers by cutting a hole in the top of each that will allow coins to slide in, and copy and attach the pig card showing the amount that should be placed in each “piggy bank.”
4. A large collection of coins will be needed for *Center Two*. The collection should include enough coins so that the students will be able to use various combinations to match the value on the “piggy banks.”
5. Prior to introducing *Center Three*, copy the train track and trains on card stock and laminate for extended use. Assemble the train track by cutting the page in half and cutting or folding along the dashed line. Align the bottom track to the right side of the top track and tape it in place. Cut the trains on the solid lines and fold on the dashed line to make them stand up.
6. Prior to introducing *Center Four*, spray paint several lima beans yellow and several red. Use a permanent black marker to put dots, a solid black head, and line down the middle in order to make them look like “ladybugs.”
7. Use a permanent marker to label the bags one, two, and three. Place six red and three yellow bugs in the first bag, five yellow and four red in the second, and one yellow and three red in the third bag.

Procedure

1. Gather the class in a central location and explain what they will be doing at each center. At *Center One*, they will be taking the money and pig cards out of the purse and matching the correct money to its name and value. At *Center Two*, they will be placing a combination of coins that equals the value on the “piggy banks” into each bank. At *Center Three*, they will be putting the trains in the correct counting order from one to 10 and/or from 10 to one. At *Center Four*, they will be sorting the ladybugs in each bag and placing them into the egg carton to compare the amounts. They will then record which they have more of. They will repeat the procedure for bag two and three.
2. Allow time for students to experience the various centers.
3. End with a discussion about what they did at the centers and what they learned at each center.

Connecting Learning

Center One—Coin Purse

1. What coin is copper or brown?
2. What is the name of the largest coin in our collection?
3. How much is the largest coin worth?
4. How did you decide which coin to match with each pig card?

Center Two—Piggy Banks

1. Which coins will combine to make 32 cents?
2. If you have one quarter, one dime and one nickel, how much money do you have?
3. Which piggy bank was easiest to fill? Why?
4. Which piggy bank was hardest to fill? Why?

Center Three—Counting Trains

1. How did you decide which train should go first? ...last?
2. Count backwards from 10 to one.
3. How do objects help us count?
4. What number comes after six?
5. Would you rather have three or nine pieces of candy? Why?

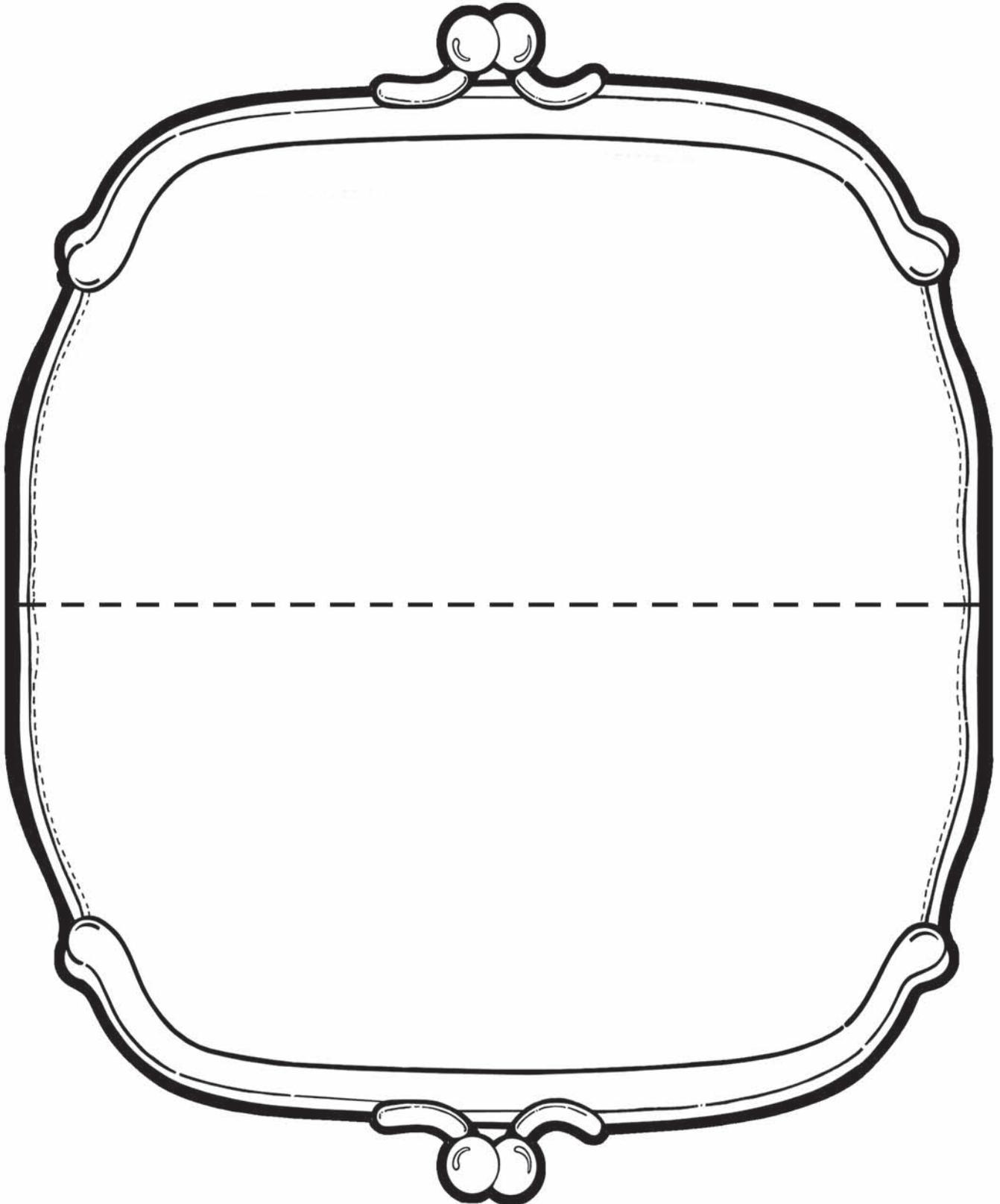
Center Four—Bag of Bugs

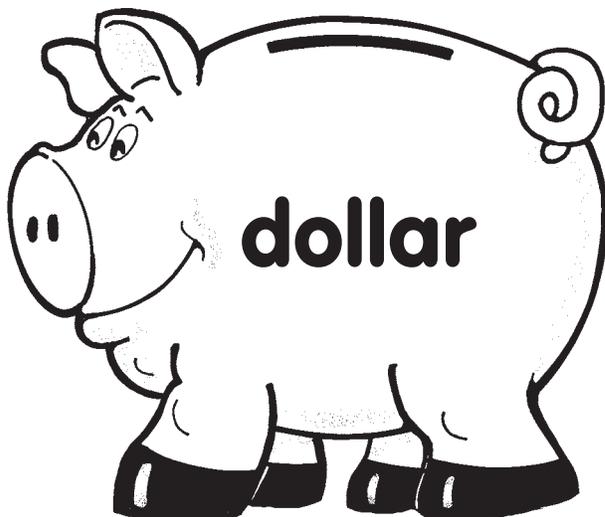
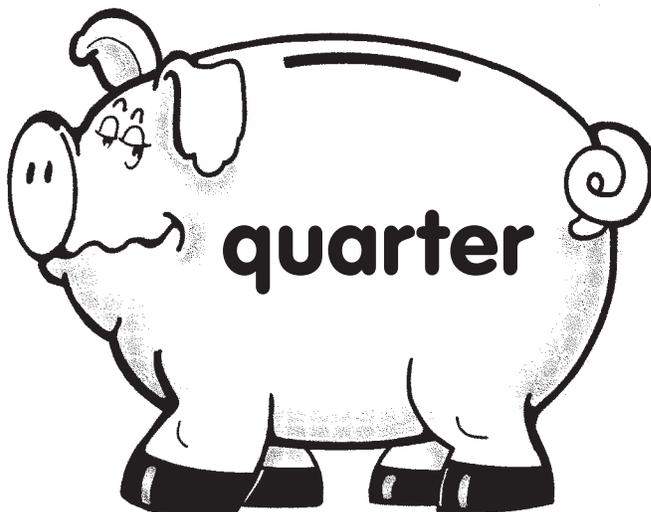
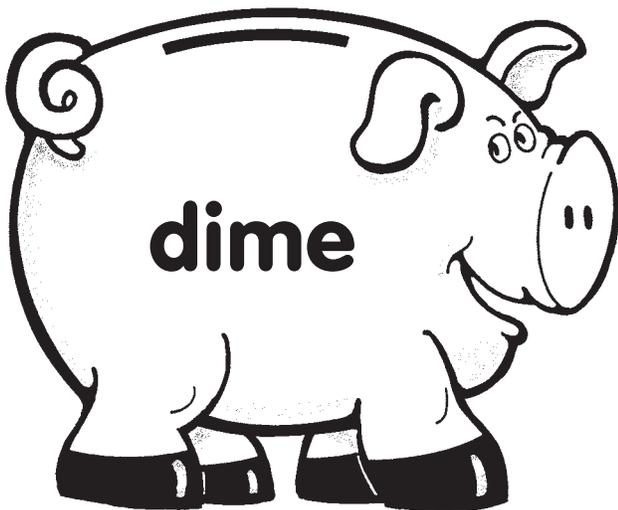
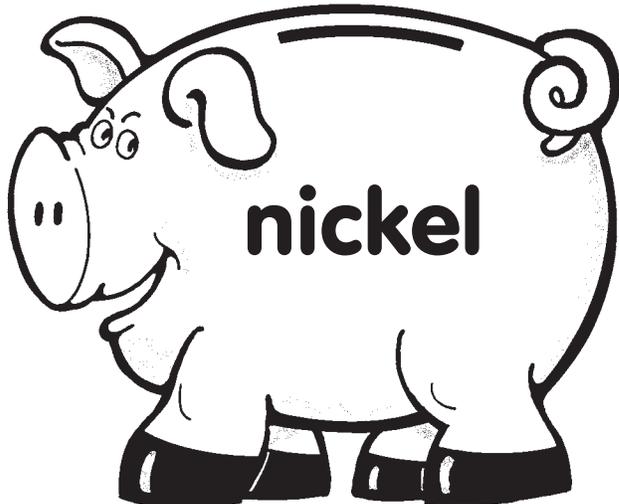
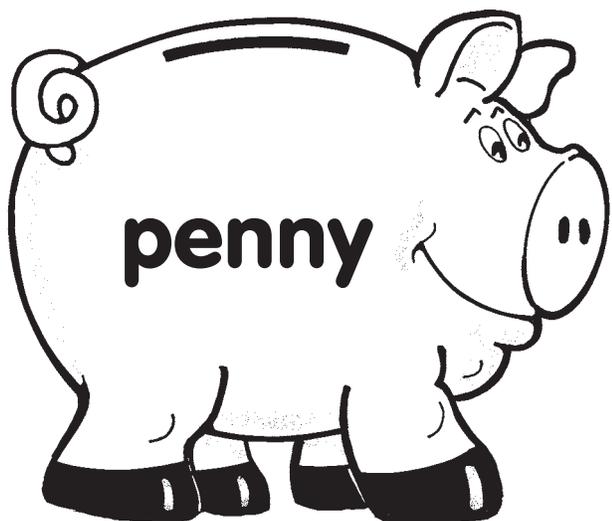
1. Which color ladybug did you have the most of?
2. How did you decide which color ladybug that you have more of?
3. Did the egg carton help you decide which you had more of? Explain.
4. How would you describe it if you had five yellow ladybugs and five red ladybugs?

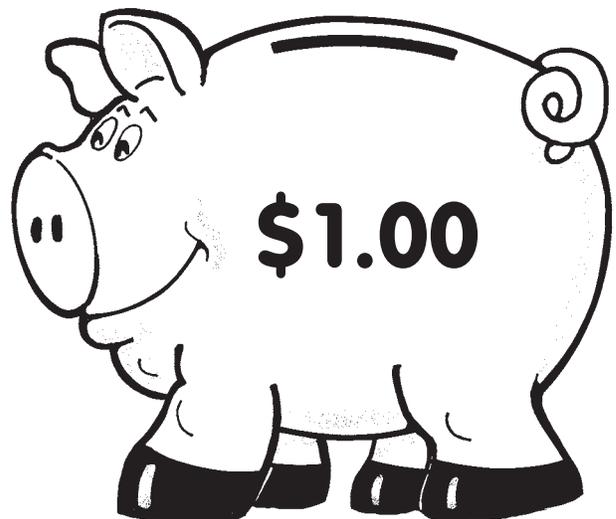
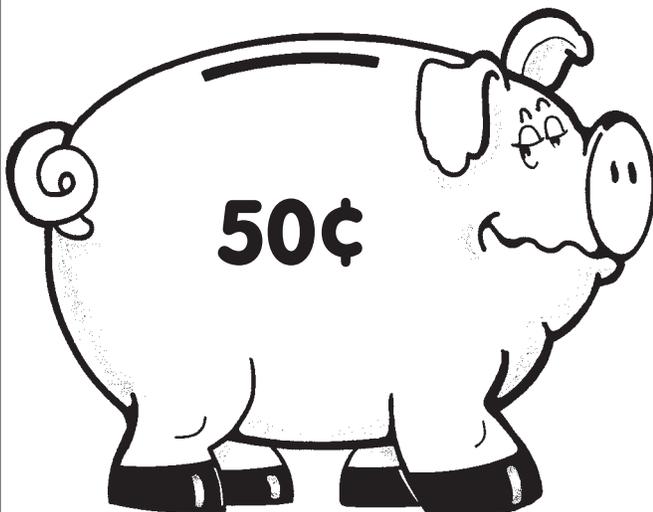
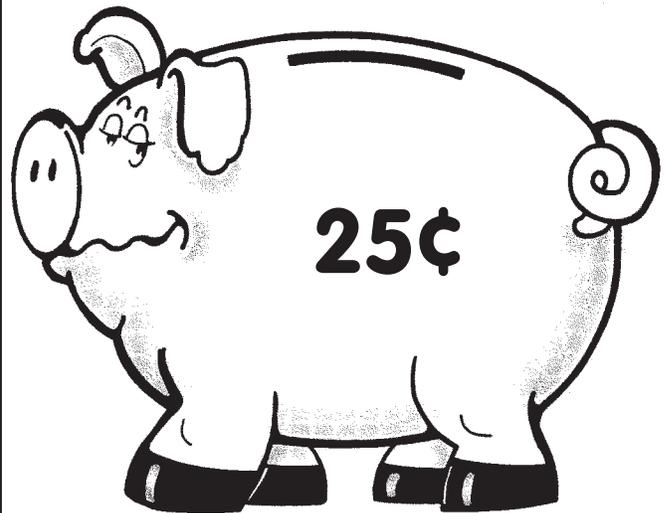
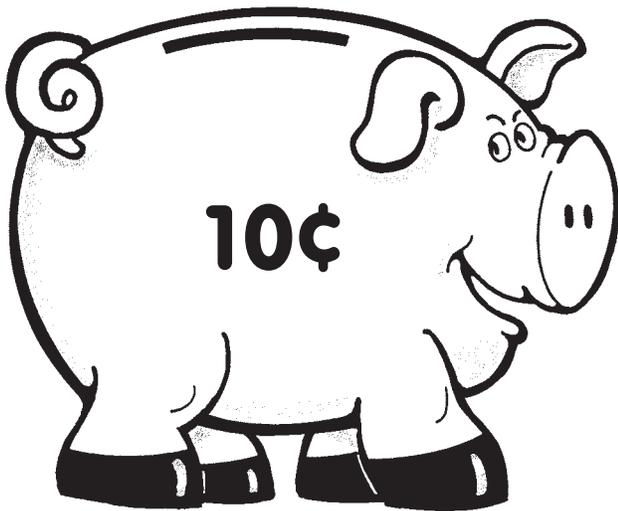
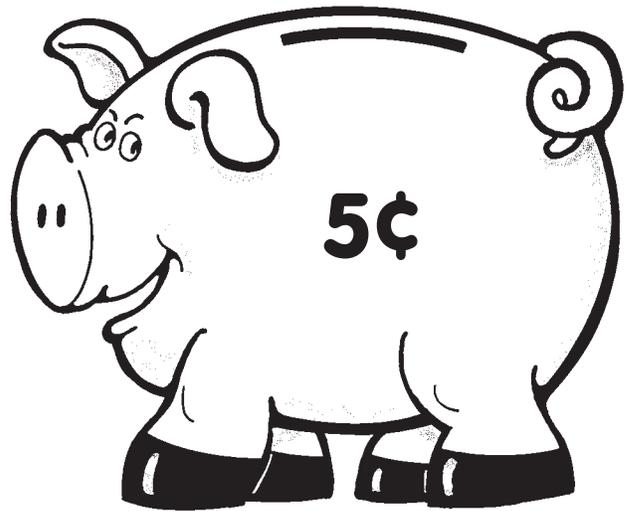
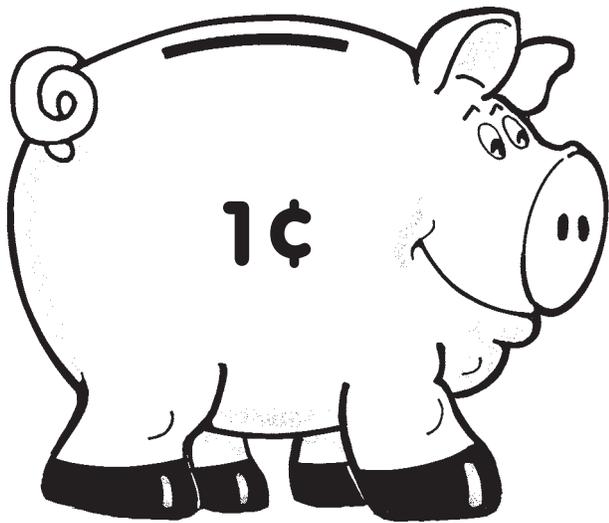
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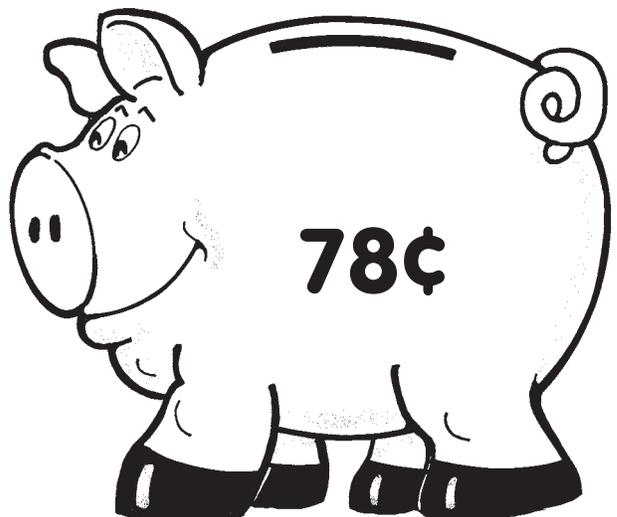
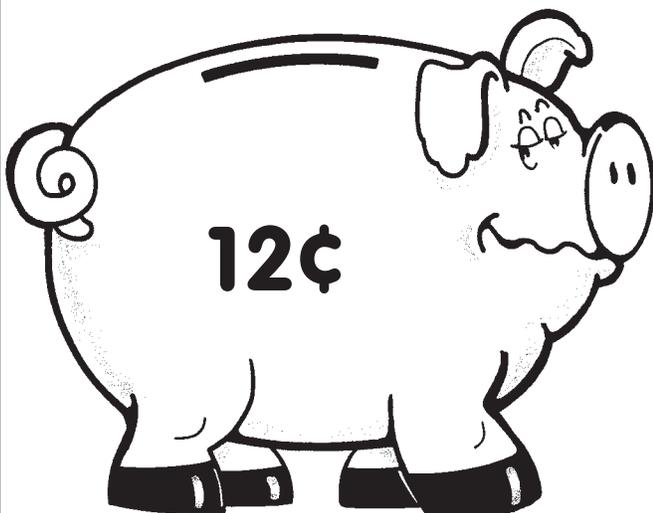
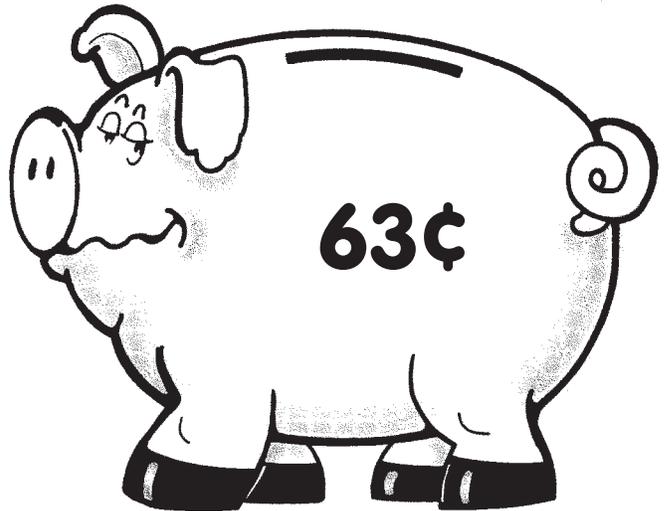
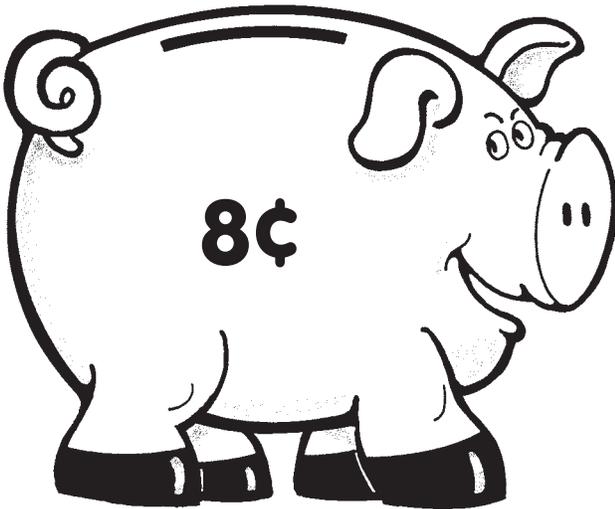
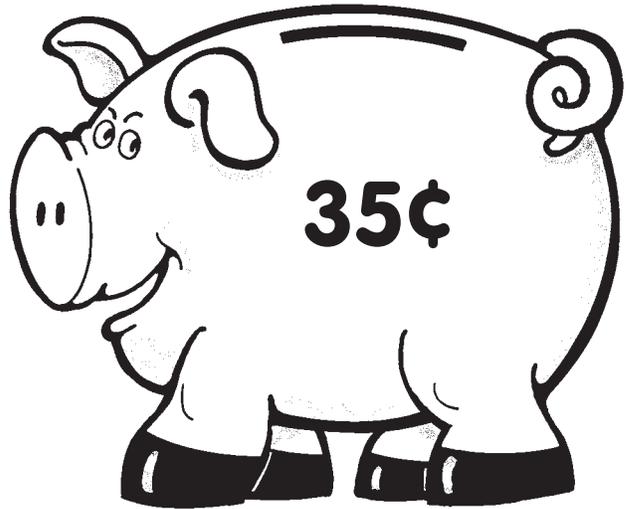
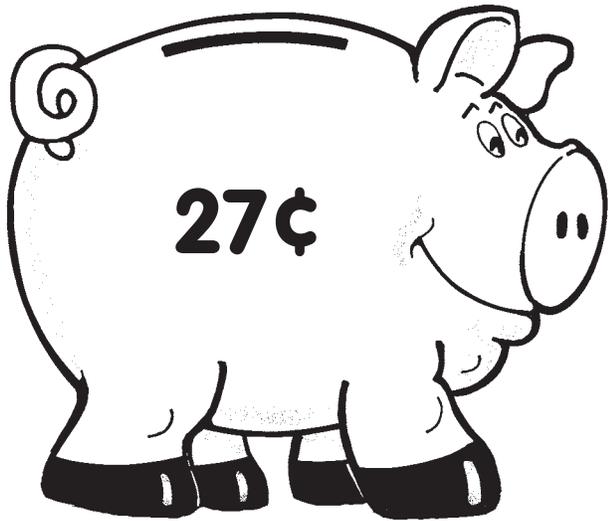
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Center One

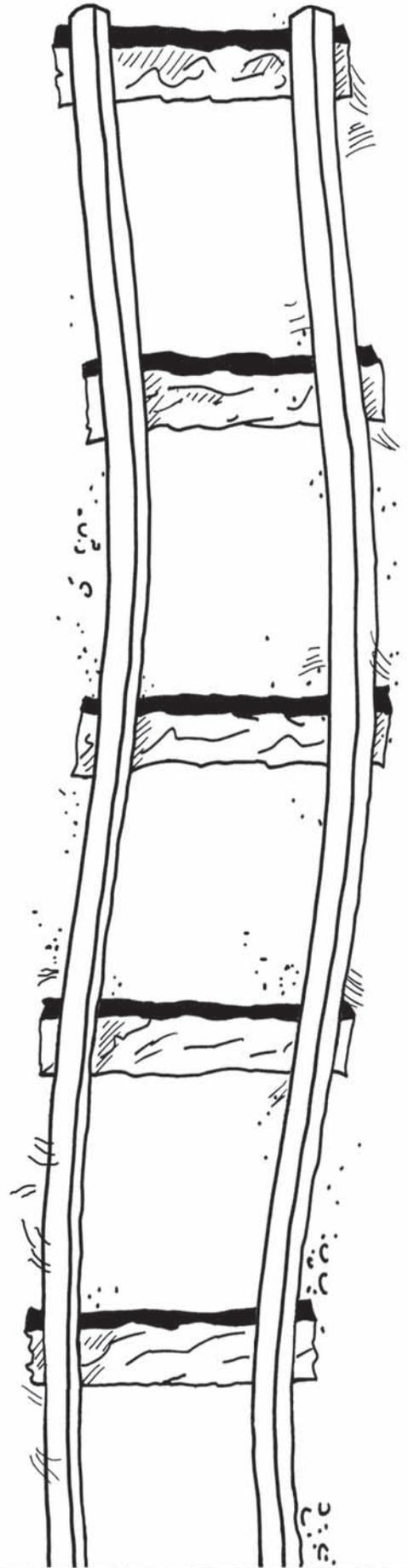
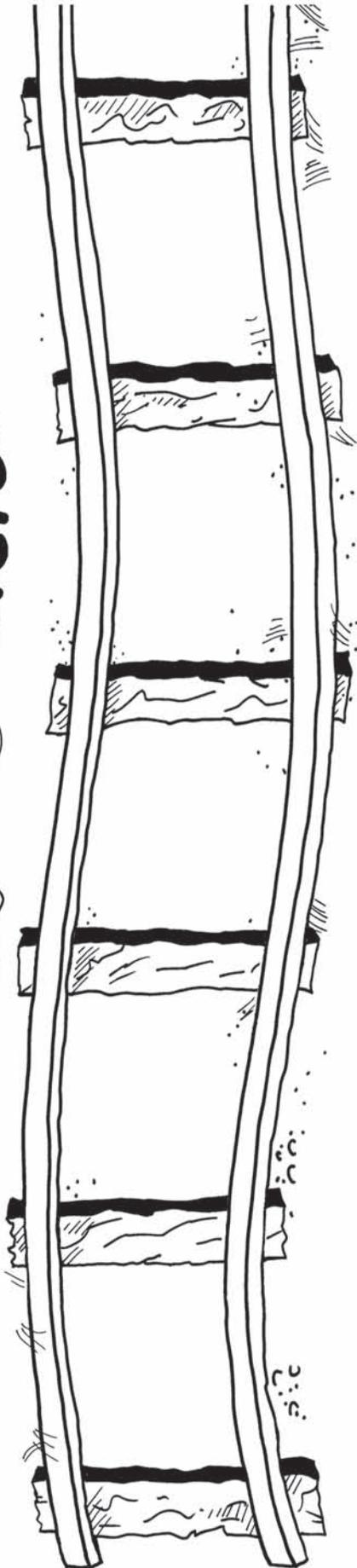


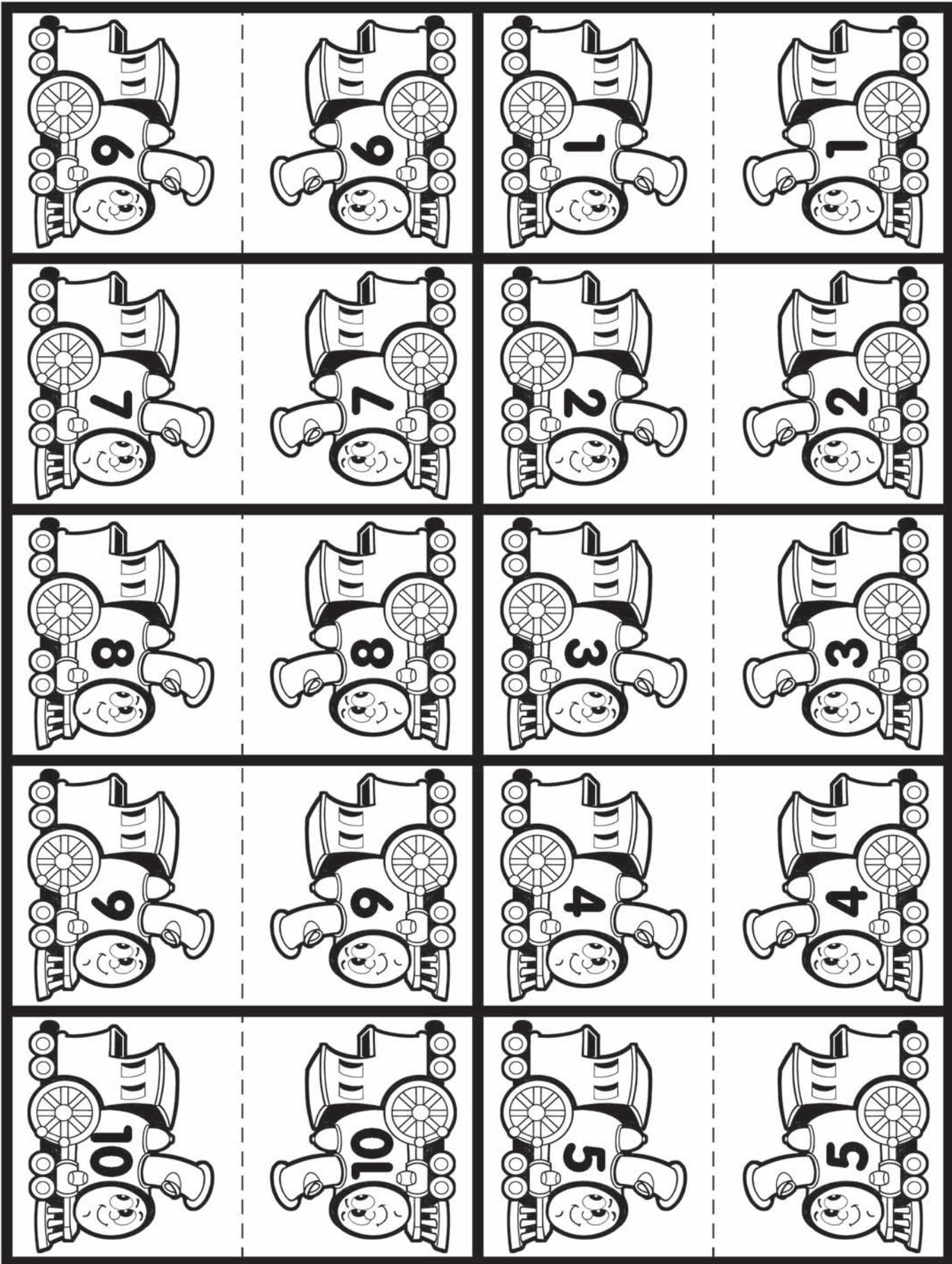






Staying Centered Center Three







I had more _____

than _____.



I had more _____

than _____.



I had more _____

than _____.