



Break the Bank!



Concepts:

Adding coins

Using $<$, $>$, $=$ signs

Using equivalence

Materials:

Coins (paper, plastic, or real)

Gameboard for each player

1 recording sheet

Take it to the Bank cards

Take it to the Bank gameboard for each player

Calculators, optional

Rules:

1. Play the game in pairs.
2. Stack the cards face down. Each player chooses one card.
3. Each player determines which coins are needed to make the amount shown on his card. For example if 20 cents is on the card the player could place 2 dimes, or 20 pennies, or 4 nickels or 1 dime and 2 nickels, etc. on his gameboard.
4. Each player places the coins equivalent to his card amount on his gameboard.
5. Each player records his set of coins on the recording sheet. For example if the first player chooses 12 cents and the second player chooses 15 cents it could be recorded as:
 $1D + 2P$ ___ $1D + 5P$ or $10 + 1 + 1$ ___ $10 + 1 + 1 + 1 + 1 + 1$
Or students might draw pictures of the coins used
6. The players must determine which symbol to use $>$, $<$, or $=$.
7. Encourage players to determine the $<$, $>$, $=$ by thinking about equivalence. For example children could determine that they do not have to pay attention to the dimes since they both have a dime. They are equal.

Break the Bank!

They can look at the pennies and nickel. They could eliminate a penny on each side since they are equal. That leaves a nickel on one side. Since nothing is on one side and a nickel is left on the other side they can determine that that side is greater.

8. Play continues for 6 rounds.

9. Option: At the end of 6 rounds players determine the total value of all six piggy banks. Students could use a calculator.

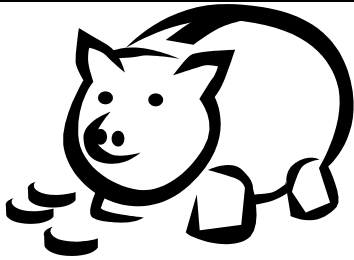
10. Option: At the end of the game each player chooses a card and record that amount two different ways.

Assessment:

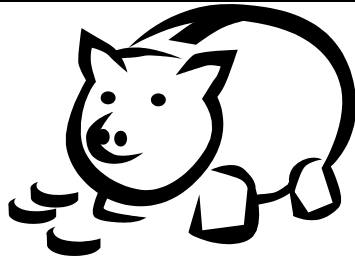
As the students are playing notice the strategies they are using.

- Adding tens and ones easily
- Determining coins to use to make the amount on the card
- Using the symbols, $<$, $>$, $=$
- Using equivalence
- Counting on fingers to determine the total
- Recognition of the coins
- Knowing the value of each coin

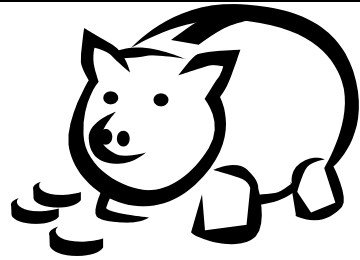
Break the Bank game cards



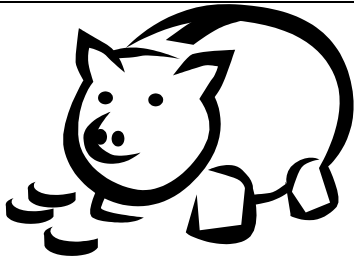
10 cents



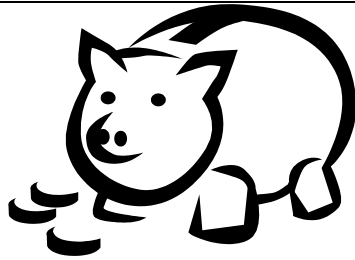
15 cents



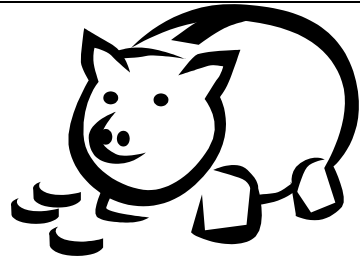
12 cents



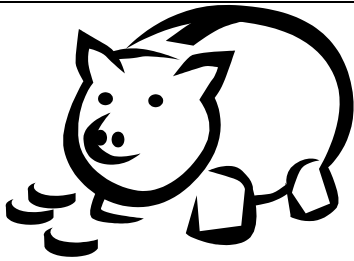
7 cents



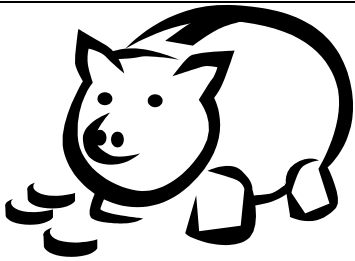
8 cents



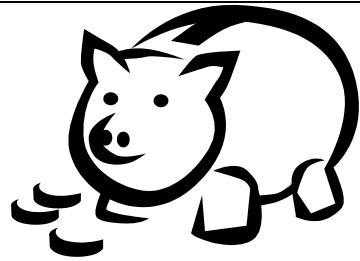
5 cents



25 cents



20 cents



30 cents



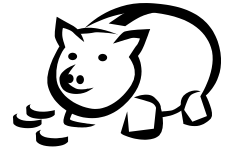
Break the Bank



Quarters	Dimes	Nickels	Pennies



Break the Bank



Record your coins. Use the symbols $=$, $<$, or $>$ in the middle blank.

Name _____

Name _____

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Total: _____

Total: _____

Choose a card. Show two ways to make that amount and record.