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CS 4500 - 001

User Manual

The Art Dealer Game:

Students are told that an “art dealer” wants to “buy” paintings represented by playing cards from a traditional poker deck of 52 cards. Students attempt to discover what kinds of cards (“paintings”) the art dealer is buying. At each turn, a student lays out 4 cards from their deck, and observes what the art dealer buys. The turns continue until the student can do two things: put out four cards, all of which the art dealer buys; and the student can describe what kind of cards the art dealer is buying. For K-2, the patterns will be simple: all red, all black, all hearts, all queens, and so forth. For 3-5, the patterns will include the easy ones from K-2, but will then progress to tougher patterns: for example, one pattern might be all single digit primes, or collections of cards that add to 9, or an ace and a black jack. For grades 6-8, all of the previous patterns will be possible, but even more complex patterns will be introduced. Finally, students in 6-8 will be able to play the game with each other, one of the students being the art dealer, and the other being the art seller.

There are three buttons at the top where the user can click to determine the difficulty. These buttons correlate to their respective grade levels, and act as a “Start a New Game” button. Select 4 cards you want to sell (you can only sell in groups of 4) - these will be highlighted green and can be selected, deselected, and reselected. When the student has selected 4 cards to attempt to sell to the buyer, click 'SELL CARDS'. All sell attempts are recorded in the log below the card layout. Cards purchased by the buyer are highlighted blue, and listed as “Purchased” in the display. Cards that are not purchased are un-highlighted, and listed as “Rejected” in the display. Note: previously purchased cards can be reselected to be sold again - the buyer will always buy these cards.

Again, the goal of the game is to determine which pattern the buyer is using to make the purchasing decisions. Below the “SELL CARDS” button is a set of radio buttons. These radio buttons represent the various patterns that the buyer may be using. Once the student thinks they know which pattern the buyer has followed in making purchases, the student must select 4 cards that will match the pattern and select the corresponding radio button. When ready to make the final decision, the student should click on the “GUESS PATTERN” button.

If the student had 4 cards selected that are all bought  by the buyer, and the student guessed the correct pattern, a winning message will display, the number of turns it took to figure it out (excluding the turn it took to Guess the Pattern) will be shown, and a happy sound will play.

If the student has the correct pattern selected but the 4 cards were not all purchased by the buyer, a losing message will display, the number of turns the student played (excluding the turn it took to Guess the Pattern) will be shown, and a sad sound will play.

If the student did not select the correct pattern (regardless of the 4 cards selected being purchased by the buyer), a losing message will display informing the player of the correct pattern, the number of turns the student played (excluding the turn it took to Guess the Pattern) will be shown, and a sad sound will play.

Buttons will become unclickable until the player begins a new game by selecting a grade level.

Patterns Available:

* Kindergarten - 2nd grade:
  + Red cards
  + Black cards
  + Hearts
  + Diamonds
  + Clubs
  + Spades
  + Twos
  + Threes
  + Fours
  + Fives
  + Sixes
  + Sevens
  + Eights
  + Nines
  + Tens
  + Jacks
  + Queens
  + Kings
  + Aces
* 3rd - 5th grade:
  + All of the above
  + Single digit primes
  + Pairs
* 6th - 8th grade:
  + All of the above
  + Sum of pairs
  + Incrementing cards
  + Decrementing cards