



## Problem of the Week

### Problem A

#### How Many Players?

Robbie likes to play many different card games. A deck has 52 cards made up of: aces, twos, threes, fours, fives, sixes, sevens, eights, nines, tens, jacks, queens, and kings. There are four of each of these values in the deck. When you deal the cards, you give each player the same number of cards to start. In some games you might deal all of the cards. In other games, you might deal some of the cards and have some cards left over. Answer the following questions about different card games Robbie plays.

- A) **Bridge** is a game with four players. You deal all of the cards in the deck. How many cards does each player get?
- B) In the game **99**, each player starts with three cards. How many cards are left over after dealing if there are six people playing the game?
- C) Each player starts with eight cards in the game of **Crazy Eights**. To play the game, you must have at least 10 cards left over after dealing. What is the maximum number of players who can play **Crazy Eights** using these rules?
- D) The game of **Euchre** does not use any of the cards with numbers 2, 3, 4, 5, 6, 7, or 8. How many cards does this game use?

