

Call Chaos

You need

- ★ a deck of cards (no jokers)
- ★ classmates

TECHNOLOGY

A cellphone gets bandwidth (signal) from nearby base stations (towers). Calls use a lot more bandwidth than texting. If a base station runs out of bandwidth, calls get “dropped” from the network. A first-generation (1G) base station can handle about 50 calls at once.

Game One

In this game for up to 5 players, each player is a “base station” and each card represents a number of callers (ace is 1; jack, queen, and king are 10; the rest are as numbered). Each round, players “receive” and “end” calls. They may also have to “drop” calls. Your goal is to have as close to 50 calls as possible at the end of each round. (If you have more than 50, you don’t earn any money!)

At the start of each round:

- Take 3 cards from the pile and put them face up in front of you. (You have received these calls.)

On your turn:

- Put one of your cards under the pile. (You have ended those calls.)
- Take 2 cards off the pile and put them face up in front of you.

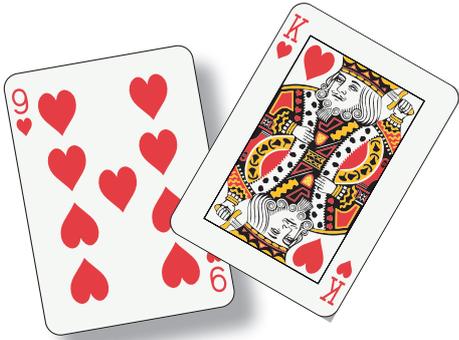
After 3 turns each (1 round):

- Calculate how many callers are connected to your station by adding the value of your cards:
 - If you have more than 50 callers, your station is overloaded and you must drop all calls.
 - If you have up to 50 calls, charge the phone company 2 cents for each call.
- Record your earnings (see the example table on page 21).

The winner is the player with the most earnings after 3 rounds.



Round	Player 1	Total	Player 2	Total	Player 3	Total
1	50 x 2 cents	\$1.00	37 x 2 cents	\$0.74	45 x 2 cents	\$0.90
2	35 x 2 cents	\$0.70	39 x 2 cents	\$0.78	38 x 2 cents	\$0.76
3	47 x 2 cents	\$0.94	51 (dropped)	–	25 x 2 cents	\$0.50
		\$2.64		\$1.52		\$2.16



Game Two

Again, your goal is to have as close to 50 calls as possible at the end of each round, but this time you have more control over how many cards you pick up and when the round ends. This time, you keep taking turns until one player closes their station.

At the start of each round:

- Take 3 cards from the pile and keep them hidden. (You have received these calls.)

On your turn, choose 1 option:

Take 1 or 2 cards off the pile and add them to the cards in your hand.

Discard 1 card.

Close your station.

When a player declares that their station is closed, the other players can pick up 1 card or pass. This is the end of the round.

At the end of each round:

- Add up your total points. If they add up to more than 50, your station is overloaded and you drop all calls (0 points).
- Calls have a value of 5 cents each. Record the money that you earn from each round.

The winner is the first person to reach \$5 or another agreed amount.

Focus

Using a range of additive strategies