

## Programs for today

- Write a program where the computer picks a random number from 1 to 100 and the user has to guess what it is. The user should be able to repeatedly enter guesses until they guess correctly.
  - The computer will report whether each guess is too high, too low, or correct.
  - The computer will report the number of guesses it takes until the user guesses correctly.
  - Bonus: Change the program to only allow a fixed number of guesses (say, 5) from the user, before they automatically lose. Or, let the user pick the number of guesses they get at the beginning. What is the guaranteed largest number of guesses someone will need to guess the number correctly?
- Write a program to simulate *a single turn* of the game "One is Zero." The game works like this:
  - During a turn, you roll a six-sided die.
  - If you roll 2-6, you get that number of points and may roll again to get more points, or you may choose to end your turn. Whenever you choose to end your turn, you earn all the accumulated points from the previous die rolls.
  - However, if you ever roll a 1, your turn ends, you lose any points you already accumulated for that turn, and you earn zero total points for that turn.
  - Print the total points you receive for that turn at the end.
  - Bonus: If there is time, allow two players to alternate taking turns (points accumulate for each turn), and after five turns each, the game ends. Print final point totals and the winner.