

Write a complete program which will simulate the playing of a game of dice. The program will do the following:

1. A main program will ask the user to type in two integer values, each in the range from 1 to 6. The main program will read the two integers into variables called die1 and die2. The main program will print the numbers after they are read in.

2. The main program will send these two integer values to a function subprogram named outcome. The function will determine the outcome of using these two numbers, according to this scheme.

- (a) If the numbers add up to 7 or 11, then the player wins, and the function should return an indication of this.
- (b) If the numbers add up to 2 or 12, then the player loses, and the function should say this.
- (c) If the numbers add up to anything else, then the player must continue, and the function should say this.

When the function returns to the main program, the main program will print an appropriate message, describing which of the three cases applies in this situation.

3. If the player won or lost, then the main program should go back to step 1 to read in two integers again and repeat the entire process. In the other case, if the player continues, then the main program will call a procedure continue, which is described below. The main program will send continue the sum of die1 + die2. For example, if die1 was 4 and die2 was 5, then the main program would send the value 9 as a parameter to continue.

4. The procedure continue will ask the player to enter two more integers (once again, in the range from 1 to 6).

- (a) If these add up to 7, then the player loses.
- (b) If they add up to the value sent to continue, then the player wins.
- (c) If they add up to anything else, the game must continue. Eventually, either the player will win or the player will lose.

Whatever the result, the procedure should print the two numbers read in each time, the outcome of this roll of the dice, and the eventual outcome. When the game is finally resolved, the procedure will return to the main program, which will continue with the next set of two numbers at step 1.

5. At step 1, if the user types in a special combination (you must determine what this combination is, and you must explain it to the person using the program), the program will halt.

DATA: Type in a total of about 10 games. Have one where the player wins immediately with 7, one where the player wins with 11, a loss with 2, a loss with 12, and have 5 or 6 games which continue. If the continue games, make sure that the player wins some and loses some.