Craps Worksheet
AP Computer Science A

The game of craps has the following rules.

- On the very first roll of a game...
  - Rolling a 7 or 11 results in a win for the player
  - Rolling a 2, 3, or 12 results in a loss for the player
  - Any other number is recorded as the **point**
- If the first roll does not result in a win or a loss, then the player has to roll again
  - Rolling a 7 now results in a loss for the player
  - Rolling a number matching the recorded point value results in a win
  - If the player rolls any other number, then the player has to keep rolling again until the player hits 7 or point. (Note: the point value doesn't change!)

The game of craps is controlled by the following variables: **sumOfDie**, **point**, and **result**.

- **sumOfDie** represents the sum of the dice rolled by the player. If the player rolls a 2 and a 7, then sumOfDie is 9
- **result** represents the state of the game. A value of 1 means the player has won, a value of -1 means the player has lost, and a value of 0 means the game is not over yet
- **point** is a very important part of the game. It is always 0 at the start of a new game. If a player doesn't win on the first roll, then it is set to the value of the first roll. For all future rolls (and until the current game ends), the player wants to roll a value that matches this point variable. At the end of a game, point should return to 0 (so the next game can start properly

Example Game Play - the darker lines represent complete games.

point - before roll	0	0	0	5	5	0	9	9	9
sumOfDie	7	2	5	6	7	9	2	4	9
result	1	-1	0	0	-1	0	0	0	1
point - after roll	0	0	5	5	0	9	9	9	0

Now you try - also indicate where games start and end.

point - before roll	0									
sumOfDie	3	5	10	12	5	6	7	7	2	11
result										
point - after roll										