Your name: _____   Date: _____

Problem: _____Assignment 2 MS 1_____

Problem description: – 3 doors, car behind one door (randomly
                          determined location), goats behind other
                          doors
                        – player chooses initial door (1-3)
                    *   – Monty reveals a goat behind one door
                          (not door player chose)
                        – player chooses again
                        – player wins/loses, car revealed

Input name	Description	Data type
First_choice	player's initial choice (1-3)	int
Second_choice	" final choice (after goat revelation) (1-3)	int

Output data:	Output form:	Data type:
goat door revealed (1-3)	printed	int
win/loss message	printed	text
car location (if player lost)	printed	int

Strategy:

- declare variable for car location (int)
- randomly determine car location (1-3)
- declare vars for player choices (int)
- prompt/read player's first choice
- ✱ · Monty reveals goat (not player's door)
- prompt/read player's second choice
- determine win/loss, print message
   if loss, reveal car

Control flow sketch:

Monty reveals goat

```
if( car == first_choice) {
  ✱ reveal goat at random ( 2 possibilities)   ⟵  you should do this
} else {
    if ( car != 1 && first_choice != 1) {

    print "Monty reveals goat behind door 1"

  } else {

    if ( car != 2 && first_choice != 2     ) {
      print "Monty reveals goat behind door 2"
    } else {

      print "Monty reveals goat behind door 3"

    }
  }
}
```

Similar problems: