def tic\_tac\_toe():

board = [None] + list(range(1, 10))

WIN\_COMBINATIONS = [

(1, 2, 3),

(4, 5, 6),

(7, 8, 9),

(1, 4, 7),

(2, 5, 8),

(3, 6, 9),

(1, 5, 9),

(3, 5, 7),

]

#lines 1-11 are all the winning combinations (diagonal, vertical, horizontal)

def draw():

print(board[7], board[8], board[9])

print(board[4], board[5], board[6])

print(board[1], board[2], board[3])

print()

#lines 14-18 are where you can place x or o

def choose\_number():

while True:

try:

a = int(input())

if a in board:

return a

else:

print("\nInvalid move. Try again")

except ValueError:

print("\nThat's not a number. Try again")

#lines 20-29 are what the computer will give as an output if a player makes a wrong move

def is\_game\_over():

for a, b, c in WIN\_COMBINATIONS:

if board[a] == board[b] == board[c]:

print("Player {0} wins!\n".format(board[a]))

print("Congratulations!\n")

return True

if 9 == sum((pos == 'X' or pos == 'O') for pos in board):

print("The game ends in a tie\n")

return True

#lines 31-39 are outputs for once the game ends and has a yes no option to play again

for player in 'XO' \* 9:

draw()

if is\_game\_over():

break

print("Player {0} pick your move".format(player))

board[choose\_number()] = player

print()

while True:

tic\_tac\_toe()

if input("Play again (y/n)\n") != "y":

break