**Tic Tac Toe**

For a draw, the maximum number of moves is the length of the board squared.

Counter move = 1

Do:

Turns determined by move % 2: NB will need to change if more than 2 players

* If odd, player 1 % = 1
* If even, player 2 % = 0

Player gets instruction to input coordinates or q to give up

Input is validated:

Quits if q is pressed

Otherwise input is validated to ensure the format is correct (int comma int)

If coords are not in valid format, return error message ask player to try again.

If in valid format, validate coords are within range of the array & position is not already occupied

If not in valid range or position is already filled, return error message and ask player to try again

If valid, place X onto board

Move ++

While IsAWin is not true or move > 9 (if the board is filled)

Move = 1

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 0,0

Input is in correct format

Coord is valid

Coord placed on board

Move = 2

2 % 2 = 0 – player 2 turn

Is not a win

Move is not greater than 9

Instruction: Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player two enters 0,1

Input is in correct format

Coord is valid

Coord placed on board

Move = 3

3 % 2 = 1 – player 1 turn

Is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 0,2

Input is in correct format

Coord is valid

Coord placed on board

Move = 4

4 % 2 = 0 – player 2 turn

Is not a win

Move is not greater than 9

Instruction: “Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player two enters 1,0

Input is in correct format

Coord is valid

Coord placed on board

Move = 5

5 % 2 = 1 – player 1 turn

Is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 1,1

Input is in correct format

Coord is valid

Coord placed on board

Move = 6

6 % 2 = 0 – player 2 turn

Is not a win

Move is not greater than 9

Instruction: “Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player one enters 1,2

Input is in correct format

Coord is valid

Coord placed on board

Move = 7

7 % 2 = 1 – player 1 turn

Is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 2,0

Input is in correct format

Coord is valid

Coord placed on board

Move = 8

8 % 2 = 0 player 2 turn

It is a win, game over

Move = 1

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 0,0

Input is in correct format

Coord is valid

Coord placed on board

Move = 2

2 % 2 = 0 – player 2 turn

It is not a win

Move is not greater than 9

Instruction: “Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player one enters 1,1

Input is in correct format

Coord is valid

Coord placed on board

Move = 3

3 % 2 = 1 – player 1 turn

It is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 0,3

Input is in correct format

Coord is valid

Coord placed on board

Move = 4

4 % 2 = 0 – player 2 turn

Is not a win

Move is not greater than 9

Instruction: “Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player one enters 1,0

Input is in correct format

Coord is valid

Coord placed on board

Move = 5

5 % 2 = 1 – player 1 turn

Is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 1,2

Input is in correct format

Coord is valid

Coord placed on board

Move = 6

6 % 2 = 0 – player 2 turn

Is not a win

Move is not greater than 9

Instruction: “Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player one enters 2,2

Input is in correct format

Coord is valid

Coord placed on board

Move = 7

7 % 2 = 1 – player 1 turn

Is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 2,0

Input is in correct format

Coord is valid

Coord placed on board

Move = 8

8 % 2 = 0 – player 2 turn

Is not a win

Move is not greater than 9

Instruction: “Player 2 enter a coord x,y to place your O or enter ‘q’ to give up

Player one enters 0,1

Input is in correct format

Coord is valid

Coord placed on board

Move = 9

9 % 2 = 1 – player 1 turn

Is not a win

Move is not greater than 9

Instruction: “Player 1 enter a coord x,y to place your X or enter ‘q’ to give up

Player one enters 2,1

Input is in correct format

Coord is valid

Coord placed on board

Move = 10

10 % 2 = 0 – player 2 turn

Is not a win

Move is greater than 9

It is a draw

Game over