ECS 315: In-Class Exercise 1 *Solution*

Instructions

1. Separate into groups of no more than three persons.
2. Only one submission is needed for each group.
3. **Do not panic.**

Name	ID
Prapun	**555**

1. A fair coin is flipped ten times. The results are:

    1 0 0 1 1 0 0 0 1 1
    H T T H H T T T H H.
    cumsum: 1 1 1 2 3 3 3 3 4 5

    Let *A* be the event that heads occurs.

    Let $R(A,n)$ denote the **relative frequency** of event *A* for the first *n* flips.
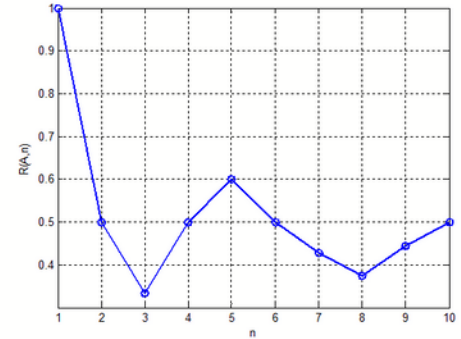
    Calculate $R(A,n)$ from $n = 1$ to $n = 10$. Write your answers in the form X.XX.

n	1	2	3	4	5	6	7	8	9	10
$R(A,n)$	$\frac{1}{1} = 1.00$	$\frac{1}{2} = 0.50$	$\frac{1}{3} \approx 0.33$	$\frac{2}{4} = 0.50$	$\frac{3}{5} \approx 0.60$	$\frac{3}{6} = 0.50$	$\frac{3}{7} \approx 0.43$	$\frac{3}{8} \approx 0.38$	$\frac{4}{9} \approx 0.44$	$\frac{5}{10} = 0.50$

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close all; clear all;

W = [1 0 0 1 1 0 0 0 1 1]; % 1 = H; 0 = T
n = length(W);
NH = cumsum(W); % Count the number of heads
R = NH./(1:n); % relative freq.
fprintf('\n'); fprintf('%6.2f',R); fprintf('\n\n')
plot(R,'-o','LineWidth',1.5); grid on % Plot the relative frequencies
xlabel('n')
ylabel('R(A,n)')
```


2. List all Dr.Prapun's office hours for this week.

    Hint: Check Google Calendar on the course website.

Office hours are time slots that Dr.Prapun plans to be in his office. For you, these are the time slots that you can visit his office to ask questions or express concerns about his class. Also, if you need his signature (because he is your advisor or because you need a signature from the head of school), you may visit his office during these slots as well.

Date	Time	
	From	To
August 21, 2017	**10:30**	**11:00**
August 22, 2017	**14:30**	**15:00**
August 23, 2017	**14:00**	**15:30**
August 24, 2017	**14:30**	**15:00**
August 25, 2017	**14:00**	**15:30**

The Wednesday and Friday slots are chosen so that those in ECS370 will be able to visit Dr.Prapun's office during at least one of the slots.

Always check Google calendar to get the up-to-date time slots for office hours.