

# EES 315: In-Class Exercise # 2 - Sol

## Instructions

1. Work alone or in a group of no more than three students. For group work, **the group cannot be the same as any of your former groups in this class.**
2. **[ENRE] Explanation is not required for this exercise.**
3. Only one submission is needed for each group.
4. You have two choices for submission:
  - i. Online submission via Google Classroom
    - PDF only.
    - Only for those who can directly work on the posted files using devices with pen input.
    - Paper size should be the same as the posted file.
    - No scanned work, photos, or screen capture.
    - Your file name should start with the 10-digit student ID of one member.  
(You may add the IDs of other members, exercise #, or other information as well.)
  - ii. Hardcopy submission
5. **Do not panic.**

Date: <u>21/08/2020</u>			
Name			ID <small>(last 3 digits)</small>
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1. A fair coin is flipped six times. The results are:

H T T T H H.

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  $n = 6$ . **Write your answers in the form X.XX.**

$n$	1	2	3	4	5	6
$R(A, n)$	$\frac{1}{1} = 1.00$	$\frac{1}{2} = 0.50$	$\frac{1}{3} \approx 0.33$	$\frac{1}{4} = 0.25$	$\frac{2}{5} = 0.40$	$\frac{3}{6} \approx 0.50$

Note how the denominator is increased as we increase the value of  $n$ .

Recall that, to find the relative frequency of an event  $A$  for the first  $n$  trials, we use the formula:

$$R(A, n) = \frac{N(A, n)}{n} = \frac{\text{\#trials that } A \text{ occurs}}{n}$$