# TB(3B) Ch. 12 Introduction to Probability

# **Multiple Choice Questions**

#### 1. [16-17 S.3 Final Exam #8]

A letter is chosen at random from the word 'TRIANGLE'. What is the probability that it is a vowel?

A.	$\frac{1}{8}$	B.	$\frac{1}{4}$
C.	$\frac{3}{8}$	D.	$\frac{1}{2}$

### 2. [16-17 S.3 Final Exam #18]

A dice is thrown twice. Find the probability that the sum of the numbers obtained is a prime number.

A.	1	В.	13
1 80	3	<b>D</b> .	36
C.	5	D.	1
U.	12	D.	$\overline{2}$

# 3. [17-18 S.3 Final Exam #12]

A dice is thrown 3 times. Find the probability that all the numbers thrown are odd numbers.

**A.** 
$$\frac{1}{8}$$
  
**B.**  $\frac{8}{27}$   
**C.**  $\frac{4}{9}$   
**D.**  $\frac{1}{2}$ 

# 4. [17-18 S.3 Final Exam #23]

If a person takes 2 socks at the same time from 5 pairs of socks of different colours, what is the probability that the 2 socks are of the same colour?

**A.**  $\frac{1}{5}$  **B.**  $\frac{1}{9}$  **C.**  $\frac{1}{10}$ **D.**  $\frac{1}{18}$ 

### 5. [17-18 S.3 Final Exam #24]

Bag *A* and bag *B* contains some balls. Bag *A* has 2 green balls and 1 yellow ball while bag *B* has 1 green ball and 1 yellow ball. If one ball is taken from bag *B* to bag *A* randomly, and then another ball is randomly drawn from bag *A*, find the expected number of green balls remaining in bag *A*.

**A.** 
$$\frac{15}{4}$$
  
**B.**  $\frac{7}{4}$   
**C.**  $\frac{7}{8}$   
**D.**  $\frac{15}{8}$ 

### 6. [18-19 S.3 Final Exam #12]

A die is tossed 100 times. The results are recorded below:

Number	1	2	3	4	5	6
Frequency	9	20	25	27	x	3

Find the experimental probability of getting a prime number.

**A.** 
$$\frac{41}{100}$$
  
**B.**  $\frac{1}{2}$   
**C.**  $\frac{61}{100}$   
**D.**  $\frac{7}{10}$ 

# 7. [18-19 S.3 Final Exam #22]

In the figure, a rectangular dartboard ABCD is formed by three identical squares. AC is a diagonal of the dartboard. Alice throws a dart at random and hits the dartboard. If the dart hits the shaded region, she will get \$24, otherwise she will get \$0. Find the expected value of the prize Alice will win.

- **A.** \$4
- **B.** \$5
- **C.** \$6
- **D.** \$8

