

# Statistical Inference Theory - Lab 2

Code ▾

## CB.SC.I5DAS20032

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```
sample(5: 60, 10, replace = TRUE)
```

```
[1]  9 54  5 11 23 48 34 34 52 25
```

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```
as.vector(outer(1:6, 1:6, paste))
```

```
[1] "1 1" "2 1" "3 1" "4 1" "5 1" "6 1" "1 2" "2 2"  
[9] "3 2" "4 2" "5 2" "6 2" "1 3" "2 3" "3 3" "4 3"  
[17] "5 3" "6 3" "1 4" "2 4" "3 4" "4 4" "5 4" "6 4"  
[25] "1 5" "2 5" "3 5" "4 5" "5 5" "6 5" "1 6" "2 6"  
[33] "3 6" "4 6" "5 6" "6 6"
```

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```
sample(c('Yes', 'No'), 10, replace = TRUE, prob = c(0.45, 55))
```

```
[1] "No" "No" "No" "No" "No" "No" "No" "No" "No" "No"
```

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```
factorial(5)
```

```
[1] 120
```

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```
choose(10, 4)
```

```
[1] 210
```

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```
choose(6, 1:6)
```

```
[1]  6 15 20 15  6  1
```

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```
library(prob)  
tosscoin(5)
```

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Statistical Inference Theory - Lab 2

toss1<fctr>	toss2<fctr>	toss3<fctr>	toss4<fctr>	toss5<fctr>
H	H	H	H	H
T	H	H	H	H
H	T	H	H	H
T	T	H	H	H
H	H	T	H	H
T	H	T	H	H
H	T	T	H	H
T	T	T	H	H
H	H	H	T	H
T	H	H	T	H

1-10 of 32 rows

Previous1234Next

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```
rolldie(2, makespace = TRUE)
```

X1<int>	X2<int>	probs<dbl>
1	1	0.02777778
2	1	0.02777778
3	1	0.02777778
4	1	0.02777778
5	1	0.02777778
6	1	0.02777778
1	2	0.02777778
2	2	0.02777778
3	2	0.02777778
4	2	0.02777778

1-10 of 36 rows

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$$p(x) = nCx \cdot p^x \cdot (1-p)^{(n-x)}$$

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```
dbinom(4, 12, 0.2)
```

```
[1] 0.1328756
```

[Hide](#)

```
sum(dbinom(0:4, 12, 0.2))
```

```
[1] 0.9274445
```

[Hide](#)

```
pbinom(4, 12, 0.2)
```

```
[1] 0.9274445
```