Common data transformations

INTERMEDIATE SPREADSHEETS

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datacamp

Caterpillar to butterfly

Logarithmic & exponential transformations (1)

	A	B	C
1	*Value*	*Command*	*Result*
2	1234567890	=LOG10(A2)	9.091514977
3		=10 ^ C2	1234567890

Logarithmic & exponential transformations (2)

	A	B	C
1	2.718281828	=LN(A1)	1
2		=EXP(C1)	2.718281828

Square root transformations

	A	B	C
1	144	=SQRT(A1)	12
2		=B1 ^ 2	144

Summary

- `LOG10()` and `LN()` perform logarithmic transformations.

- `10 ^ x` and `EXP()` perform exponential transformations.

- `SQRT()` performs square root transformations.

Let's practice!

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Rounding numbers

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Rounding

	A	B	C
1	*Value*	*Command*	*Result*
2	1234.5678	=ROUND(A2)	1235
3		=ROUND(A2, 2)	1234.57
4		=ROUND(A2, -2)	1200

Ceiling and floor (1)

	A	B	C
1	*Value*	*Command*	*Result*
2	1234.5678	=CEILING(A2)	1235
3		=FLOOR(A2)	1234
4	−1234.5678	=CEILING(A4)	−1234
5		=FLOOR(A4)	−1235

Ceiling and floor (2)

	A	B	C
1	*Value*	*Command*	*Result*
2	1234.5678	=CEILING(A2, 0.01)	1234.57
3		=FLOOR(A2, 0.01)	1234.56
4		=CEILING(A2, 100)	−1300
5		=FLOOR(A2, 100)	−1200

Summary

- `ROUND(x, n)` rounds `x` to the nearest `n` decimal places.

- `CEILING(x, y)` rounds `x` up to the nearest multiple of `y`.

- `FLOOR(x, y)` rounds `x` down to the nearest multiple of `y`.

Let's get rounding!

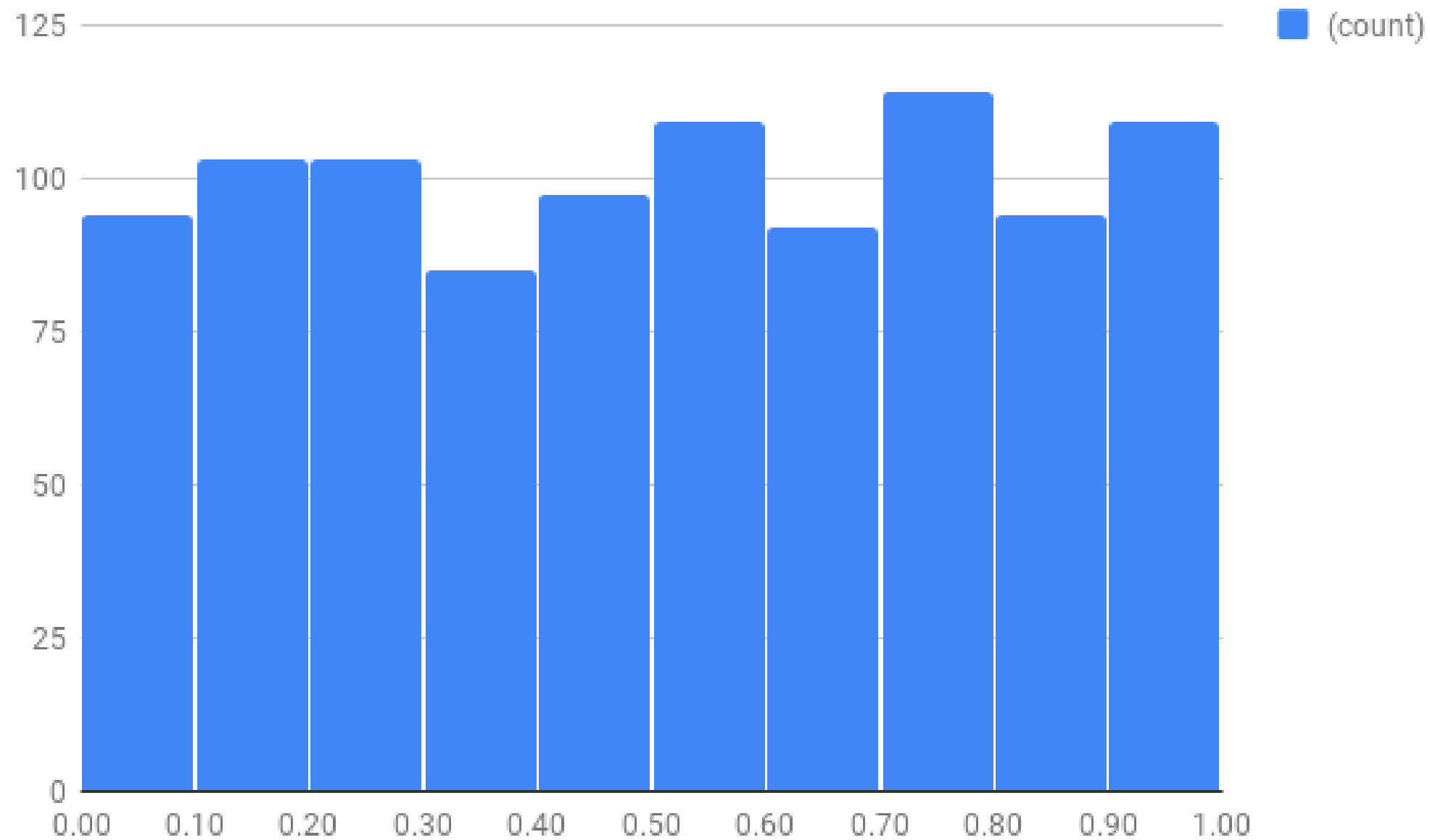### INTERMEDIATE SPREADSHEETS

Generating random numbers

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Uniform random numbers

Generating Uniform random numbers (1)

	A	B
1	*Command*	*Result*
2	=RAND()	0.6087775801
3	=RAND()	0.6543340551
4	=RAND()	0.0904296682
5	=RAND()	0.9047422407
6	=RAND()	0.3234227739

Generating Uniform random numbers (2)

	A	B
1	*Command*	*Result*
2	`=RANDBETWEEN(-10, 10)`	6
3	`=RANDBETWEEN(-10, 10)`	-8
4	`=RANDBETWEEN(-10, 10)`	0
5	`=RANDBETWEEN(-10, 10)`	10
6	`=RANDBETWEEN(-10, 10)`	-4

Normal random numbers
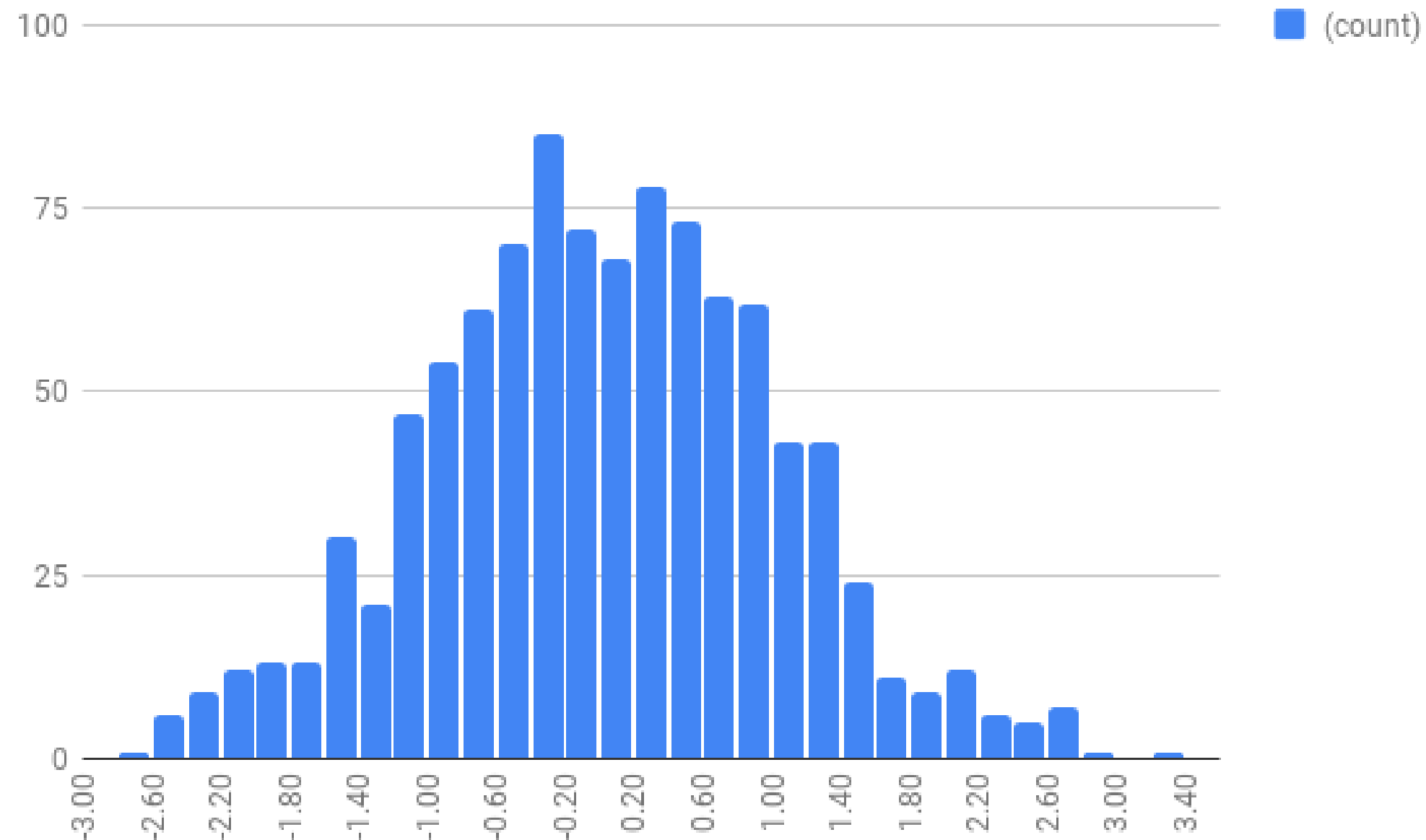
Generating normal random numbers

	A	B
1	*Command*	*Result*
2	`=NORMINV(RAND(), 0, 1)`	0.2632031214
3	`=NORMINV(RAND(), 0, 1)`	-2.125216831
4	`=NORMINV(RAND(), 0, 1)`	1.7782466883
5	`=NORMINV(RAND(), 0, 1)`	0.3543720507
6	`=NORMINV(RAND(), 0, 1)`	-0.505721445

Generating numbers from other distributions

	A	B
1	*Command*	*Result*
2	`=LOGINV(RAND(), 0, 1)`	5.5092905838
3	`=TINV(RAND(), 5)`	1.4659633351
4	`=FISHERINV(RAND())`	0.7342333678
5	`=FINV(RAND(), 2, 2)`	0.8368314521
6	`=BETAINV(RAND(), 1, 1, -10, 10)`	-4.030918093

Summary

- `RAND()` generates random Uniform numbers between 0 and 1.

- `RANDBETWEEN()` generates random Uniform integers between two limits.

- `NORMINV(RAND())` generates random normal numbers.

- `*INV(RAND())` generates random numbers from other distributions.

Let's get random!

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