Supervised vs. Unsupervised Machine Learning

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Romeo Kienzler

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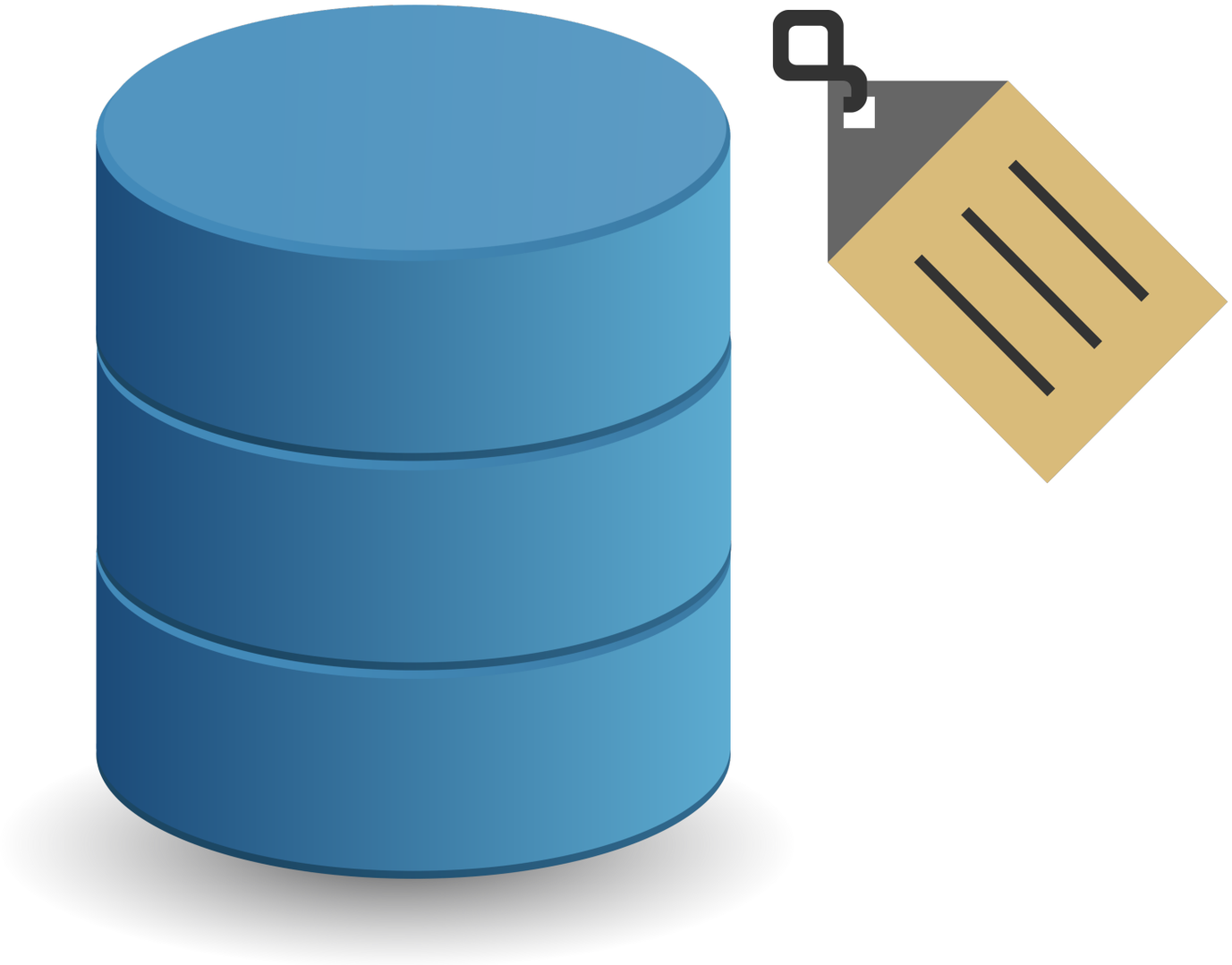

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Part No.	Max Temp.	Min Temp.	Max Vibration	Asperity
100	35	35	12	0.32
101	46	35	21	0.34
130	56	46	3412	12.42
131	58	48	3542	13.43

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Part No.	Max Temp.	Min Temp.	Max Vibration	Asperity
100	35	35	12	0.32
101	46	35	21	0.34
130	56	46	3412	12.42
131	58	48	3542	13.43

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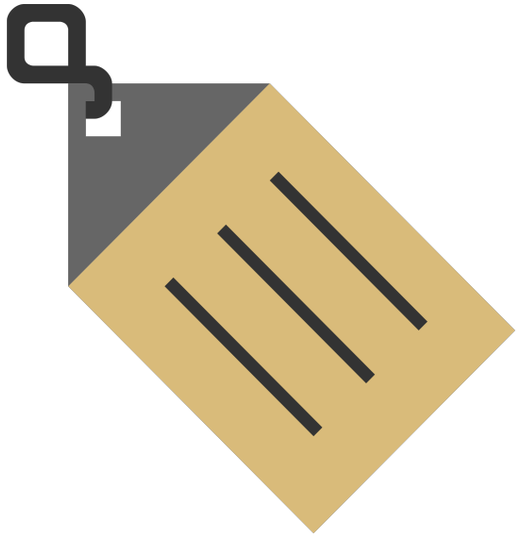

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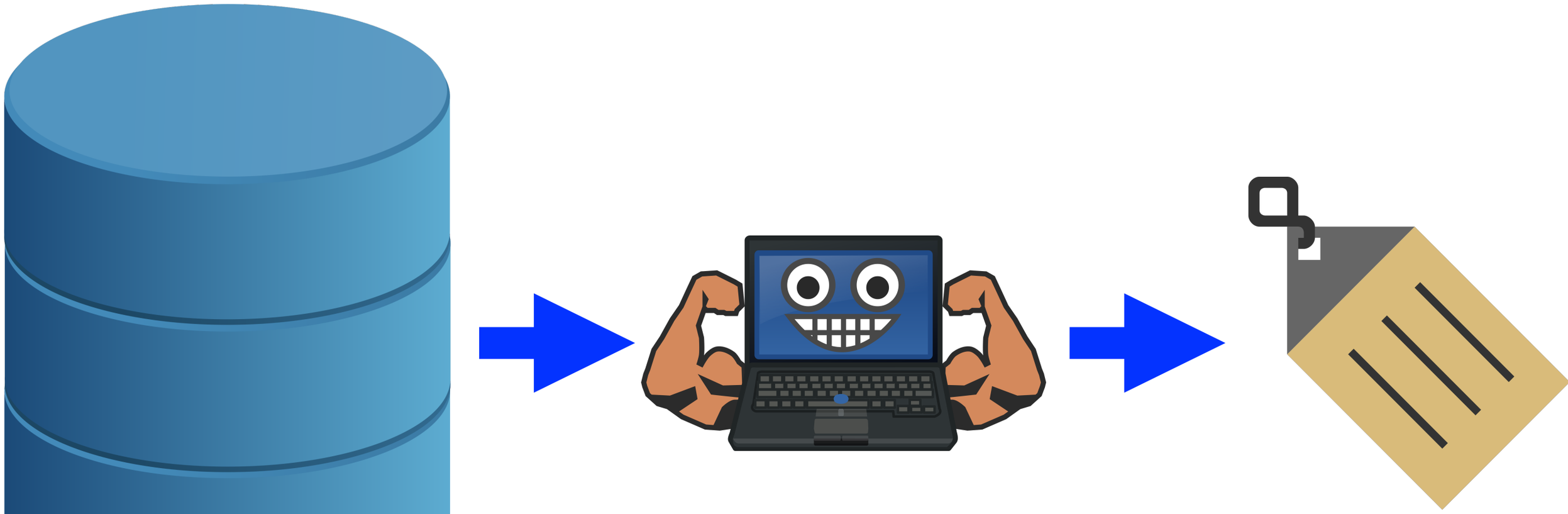

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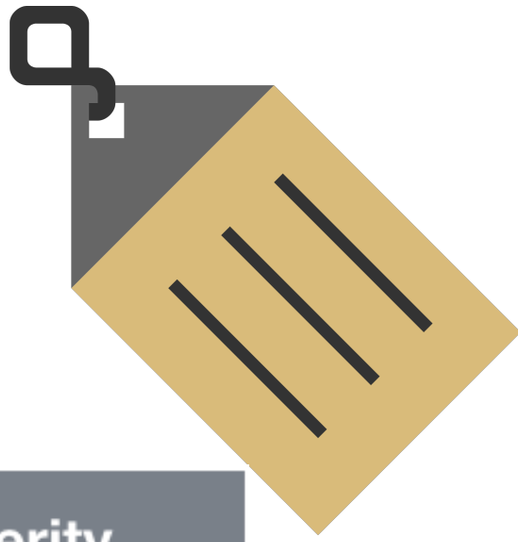

Max Temp.	Min Temp.	Max Vibration
35	35	12

Asperity
0.32

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REGRESSION

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Part No.	Max Temp.	Min Temp.	Max Vibration	Broken
100	35	35	12	0
101	46	35	21	0
130	56	46	3412	1
131	58	48	3542	1

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Part No.	Max Temp.	Min Temp.	Max Vibration	Broken
100	35	35	12	0
101	46	35	21	0
130	56	46	3412	1
131	58	48	3542	1

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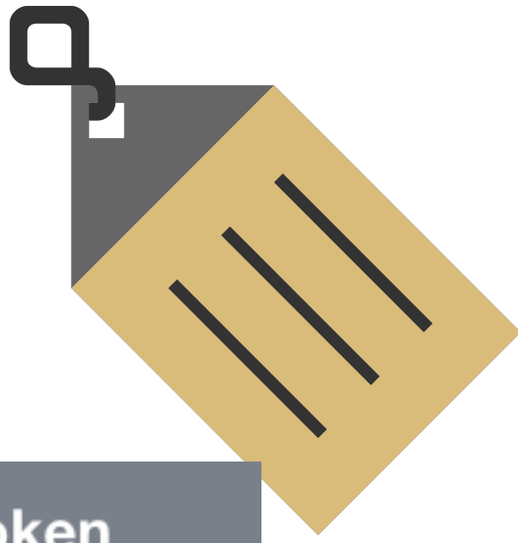

Max Temp.	Min Temp.	Max Vibration
35	35	12

Broken
0

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CLASSIFICATION

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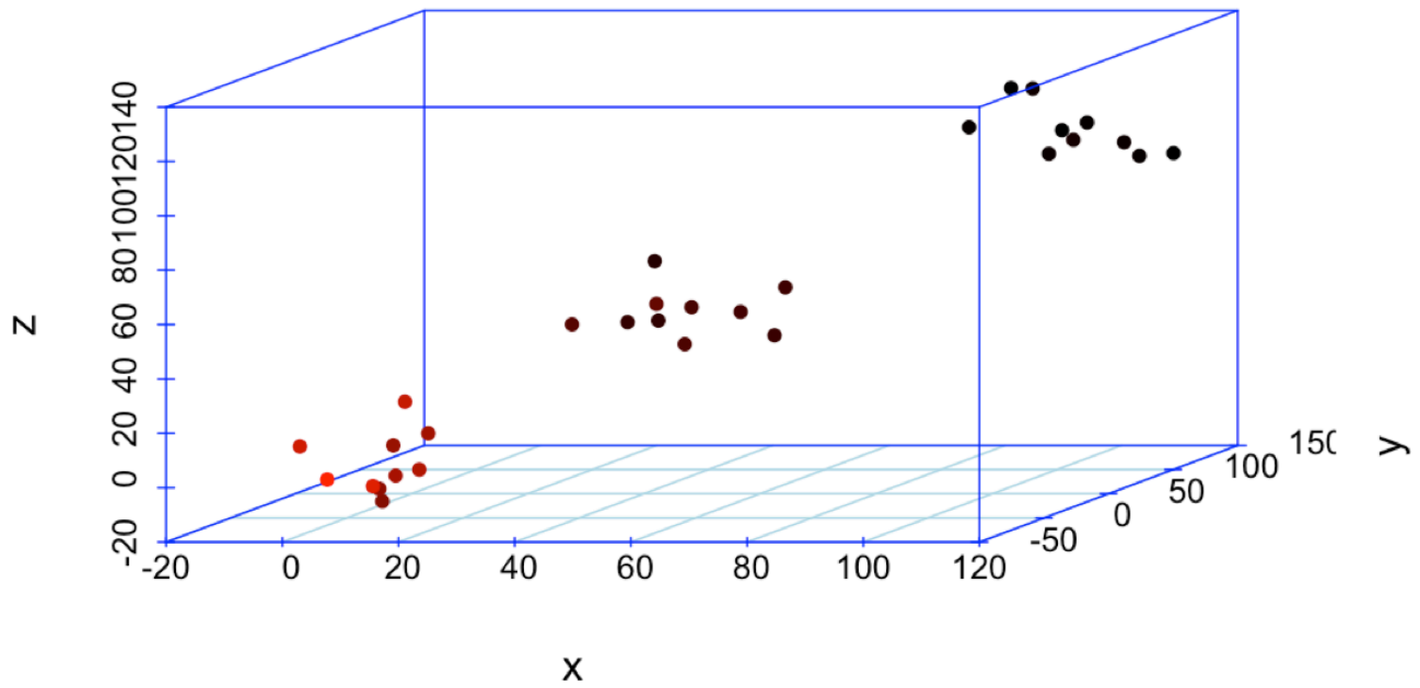
	x	y	z
1	12.023134	2.007811	-2.585383
2	3.026154	13.838964	-16.336155
3	-6.510926	-7.130590	7.543117
4	2.169417	-24.992197	-1.447894
5	11.366611	-6.164568	23.800473
6	6.593015	6.281732	5.560542
7	3.828445	7.870294	-10.695738
8	6.798550	-10.419181	-6.481363
9	7.228387	5.266049	-5.395895
10	12.683123	6.010962	10.024605
11	41.405809	54.944957	42.812644
12	48.697385	47.911264	48.977688



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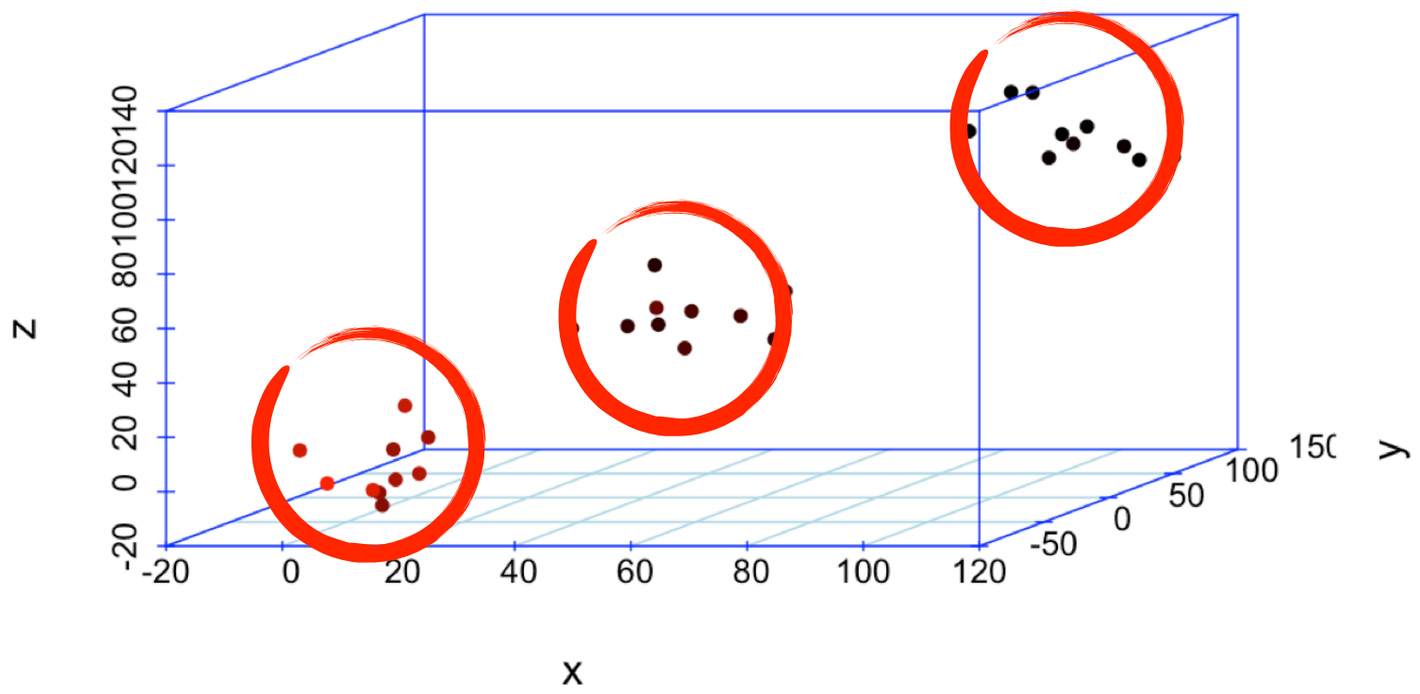
	x	y	z
1	12.023134	2.007811	-2.585383
2	3.026154	13.838964	-16.336155
3	-6.510926	-7.130590	7.543117
4	2.169417	-24.992197	-1.447894
5	11.366611	-6.164568	23.800473
6	6.593015	6.281732	5.560542
7	3.828445	7.870294	-10.695738
8	6.798550	-10.419181	-6.481363
9	7.228387	5.266049	-5.395895
10	12.683123	6.010962	10.024605
11	41.405809	54.944957	42.812644
12	48.697385	47.911264	48.977688



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CLUSTERING

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	x	y	z
1	12.023134	2.007811	-2.585383
2	3.026154	13.838964	-16.336155
3	-6.510926	-7.130590	7.543117
4	2.169417	-24.992197	-1.447894
5	11.366611	-6.164568	23.800473
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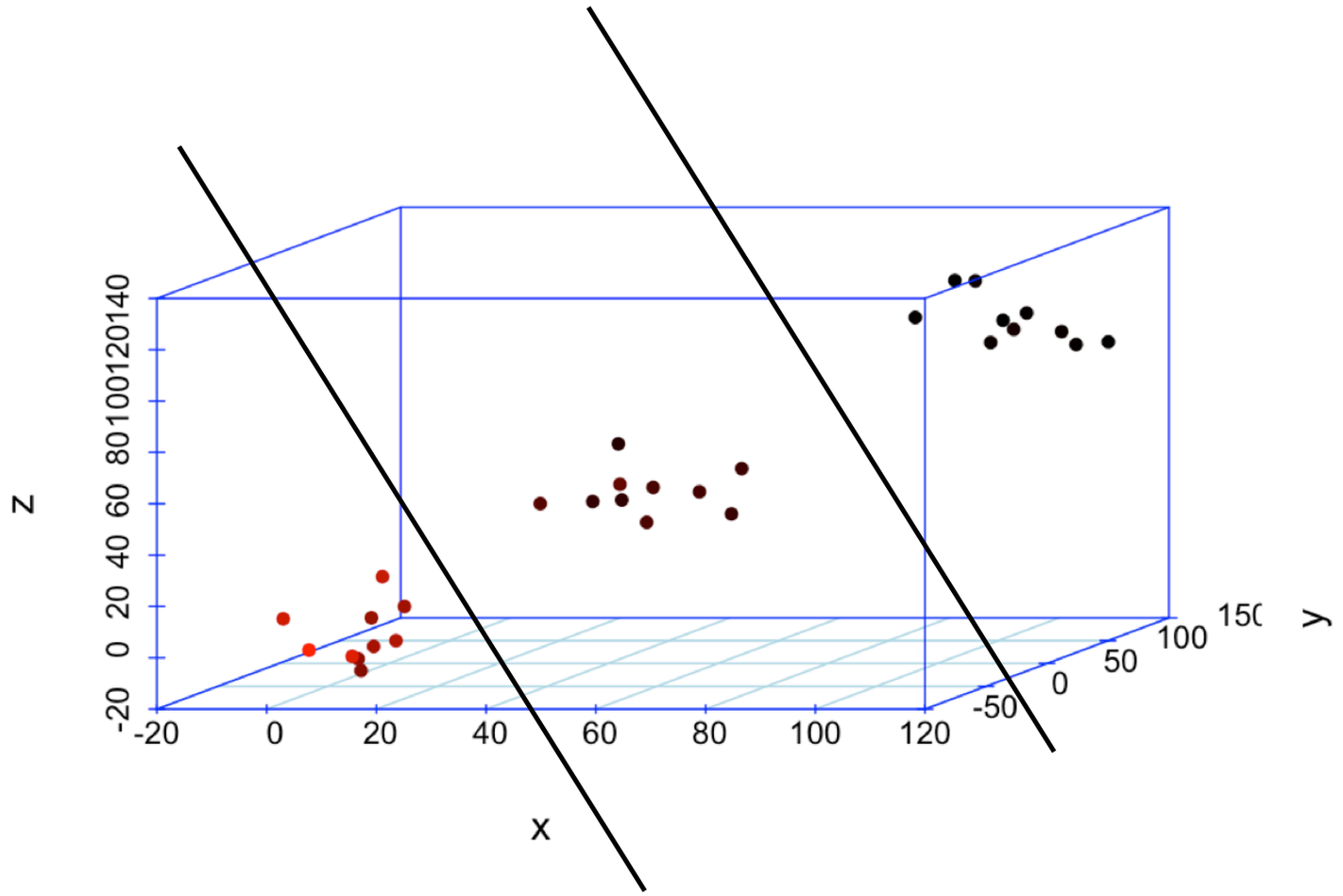
9	7.228387	5.266049	-5.395895
10	12.683123	6.010962	10.024605
11	41.405809	54.944957	42.812644
12	48.697385	47.911264	48.977688



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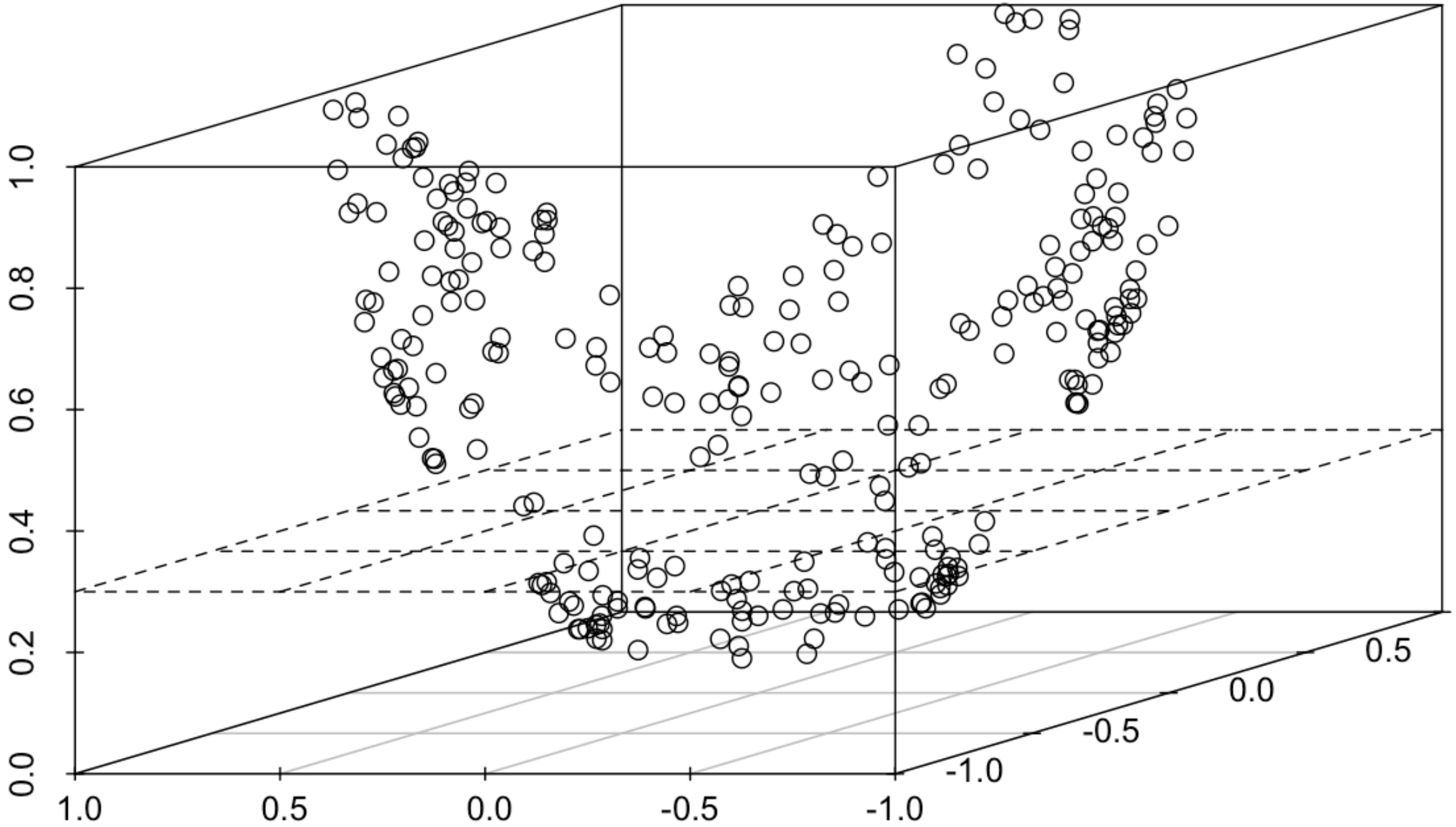

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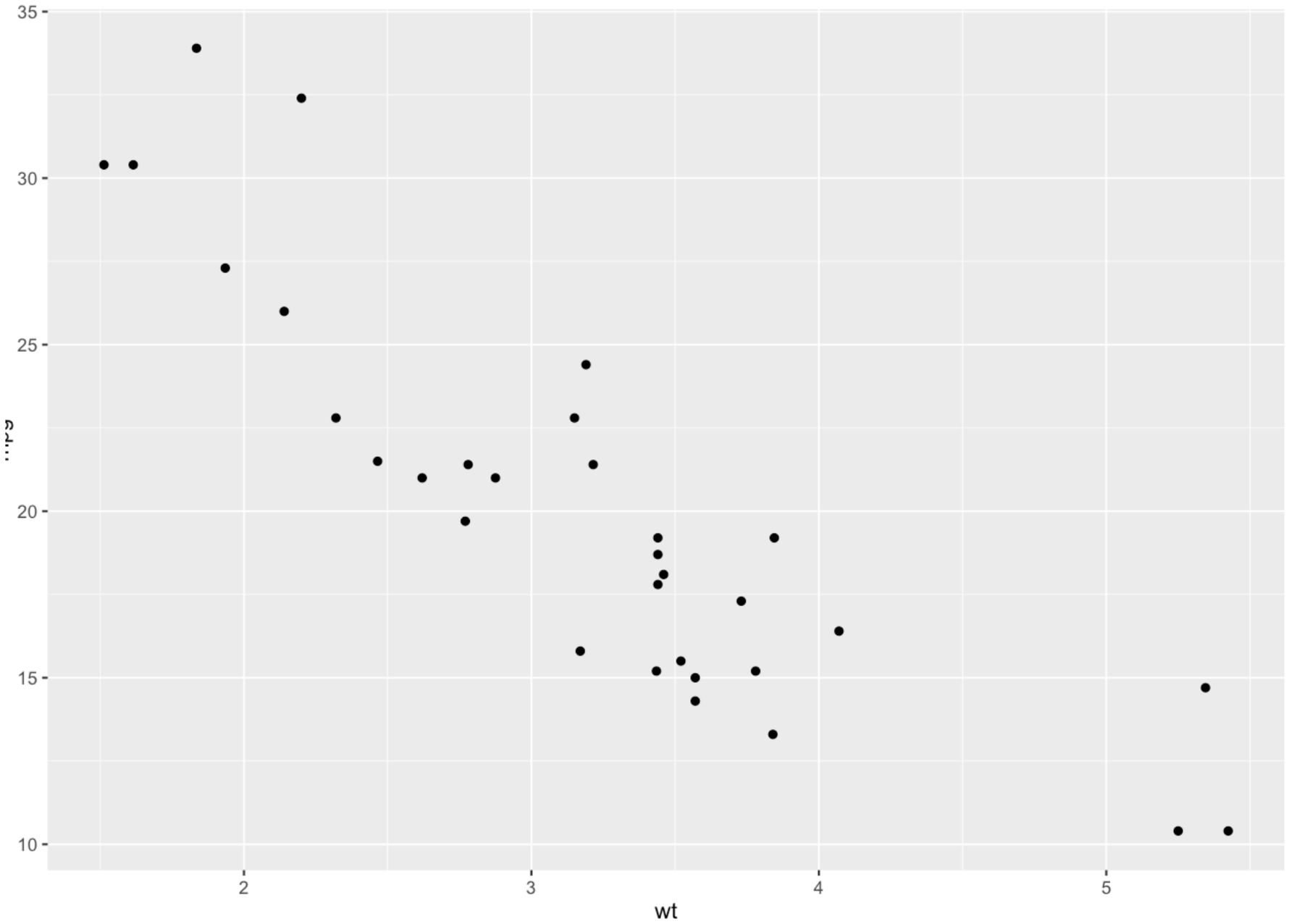

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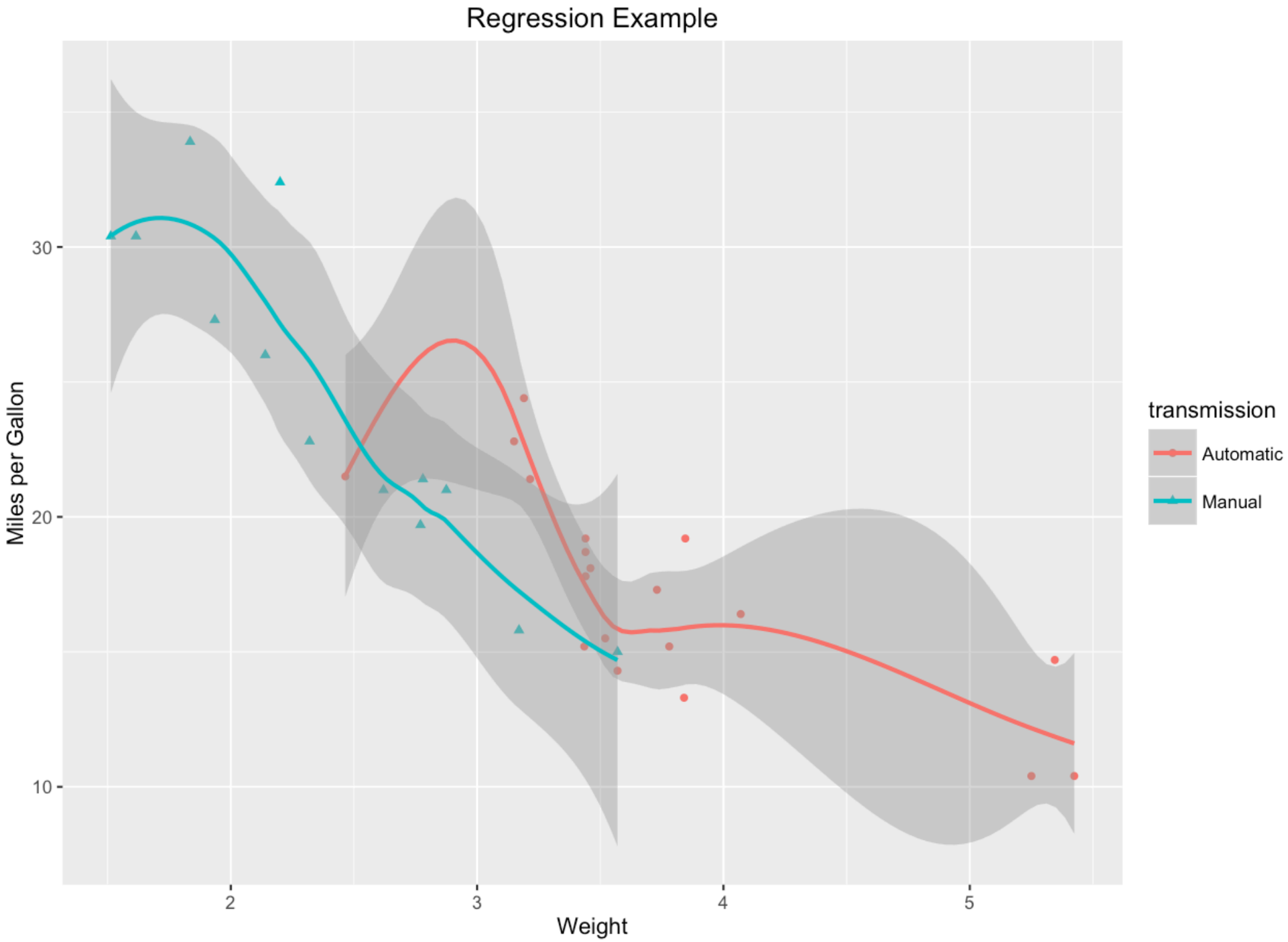

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	a	b	x	y	z
1	2.704474	10.439682	12.023134	2.007811	-2.585383
2	-11.916117	4.801330	3.026154	13.838964	-16.336155
3	3.571331	-2.491360	-6.510926	-7.130590	7.543117
4	-23.055423	-5.566803	2.169417	-24.992197	-1.447894
5	21.929361	2.596864	11.366611	-6.164568	23.800473
6	-2.530668	6.794442	6.593015	6.281732	5.560542
7	13.117871	-7.576513	3.828445	7.870294	-10.695738
8	6.907686	-5.054841	6.798550	-10.419181	-6.481363
9	-17.803712	-11.644156	7.228387	5.266049	-5.395895
10	10.906980	2.972736	12.683123	6.010962	10.024605
11	49.895619	54.284747	41.405809	54.944957	42.812644
12	54.060665	59.723532	48.697385	47.911264	48.977688

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DIMENSION REDUCTION

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Summary

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