K-Means

MilesRemaining ~ GaugeLevel + Light + Distance

Uses:

- All variables
- 10 centers

Pros:

- Easy to execute

Cons:

- Lots of human factors in interpretation
- Difficult to choose a row
- Difficult to communicate
- No good measure of accuracy

Centroids

MilesRemaining	GaugeLevel	Light	Distance
47.267	-0.141	1.000	301.225
65.871	0.083	0.963	285.096
86.153	0.500	0.208	264.767
90.856	0.438	0.250	289.500
116.424	0.908	0.000	247.147
128.073	1.232	0.000	213.479
167.513	1.395	0.000	246.174
181.677	1.929	0.000	173.421
227.054	2.672	0.000	128.969
276.483	3.133	0.000	98.513

Logistic Regression

MilesRemaining ~ GaugeLevel

Uses:

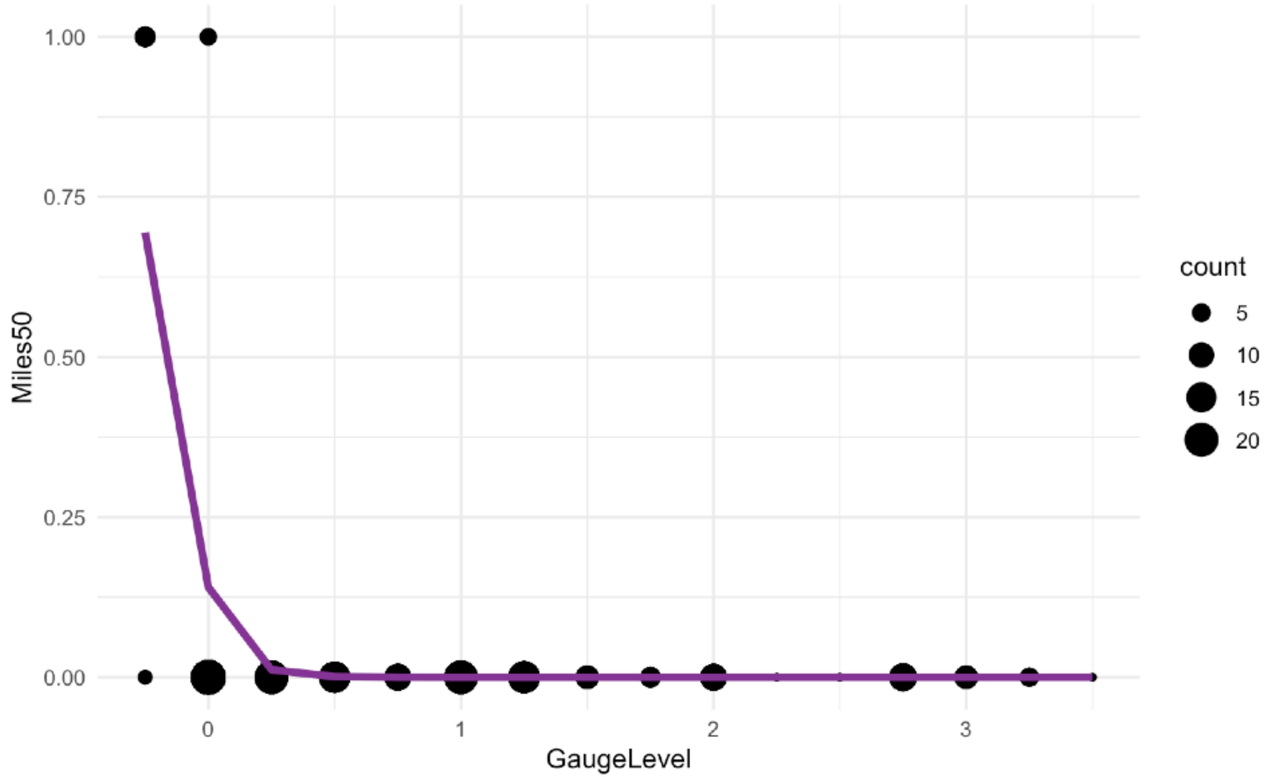
- GaugeLevel
- MilesRemaining converted to <= 50 miles remaining

Pros:

- Easy to understand
- Relatively accurate

Cons:

- Almost the same as the GaugeLevel
- You either run out of gas or you don't...
  - MilesRemaining is <= 50 at -.25 GaugeLevel



$$\text{Miles50} = \frac{.095}{\text{GaugeLevel} + .267} - 1$$

Accuracy $\approx 95.93\,\%$