Stewardship of God's creation is important to many Christian. One group interested in this issue is concerned about what they perceive as a lack of progress in making cars more efficient. To get an idea of how things are right now, 30 random models of four door sedans are selected and the EPA gas mileage ratings are obtained (see data below).

$$\begin{array}{cccccccccc}
36.3 & 41.0 & 36.9 & 37.1 & 44.9 & 32.7 & 37.3 & 41.2 & 36.6 & 32.9 \\
40.5 & 36.5 & 37.6 & 33.9 & 40.2 & 36.2 & 37.9 & 36.0 & 37.9 & 35.9 \\
38.5 & 39.0 & 35.5 & 34.8 & 38.6 & 36.3 & 36.8 & 32.5 & 36.4 & 40.5
\end{array}$$

1. Obtain a 5 category frequency table for this data. Be sure to show you work and be complete.

1) 5 categories

2) 44.9-32.5=12.4

3) $\frac{12.4}{5} = 2.48 \to 2.4 \to 2.5$

4) 32.5-0.05=32.45

Category	Frequency	Relative Freq.	Cumulative Freq.	CRF
32.45-34.95	5	$0.1\overline{6}$	5	$0.1\overline{6}$
34.95-37.45	13	$0.4\overline{3}$	18	0.60
37.45-39.95	6	0.20	24	0.80
39.95-42.45	5	$0.1\overline{6}$	29	$0.9\overline{6}$
42.45-44.95	1	$0.0\overline{3}$	30	1.00

2. On the back of the quiz, draw a stem and leaf plot of the data.

```
32 | 7 9 5                          Key: 32|7=32.7 mpg
33 | 9
34 | 8
35 | 9 5
36 | 3 9 6 5 2 0 3 4 8
37 | 1 3 6 9 9
38 | 5 6
39 | 0
40 | 5 2 5
41 | 0 2
42 |
43 |
44 | 9
```