Part D [14 points]

The top table shows a few of over 4000 rows of earthquake data in an Excel workbook.
The first 6 columns are raw data.
Long Date, **Depth Rating**, and **Magnitude Rating** are assigned by formulae.

The other tables provides bin ranges for the **Rating** columns and provides some statistical
information.

All ranges have been named using the appropriate labels.

Year	Date	Depth	Magnitude	FlynnEng	Intensity	Long Date	Depth Rating	Magnitude Rating
1901	0331	20	6.7	360	X	3/31/1901	Shallow	6 to 7
1902	0213	33	6	337	8	2/13/1902	Shallow	6 to 7
1902	0705	33	6.5	364	9	7/5/1902	Shallow	6 to 7
1902	0705	22	6.6	364	X	7/5/1902	Shallow	6 to 7
1903	0428	33	6.3	366	9	4/28/1903	Shallow	6 to 7
1903	0802	20	6	368	7	8/2/1903	Shallow	6 to 7
1903	0811	120	7.2	368	X	8/11/1903	Deep	7 and greater
1903	0811	100	7.7	368	E	8/11/1903	Deep	7 and greater
1903	0913	50	6.2	358	7	9/13/1903	Medium	6 to 7
1903	0913	100	6.3	358	8	9/13/1903	Deep	6 to 7
1903	0919	20	6	368	7	9/19/1903	Shallow	6 to 7
1904	0404	15	6.7	383	9	4/4/1904	Shallow	6 to 7
1904	0404	30	7.1	363	X	4/4/1904	Shallow	7 and greater
1904	0404	33	7.3	363	X	4/4/1904	Shallow	7 and greater
1904	0404	40	7.8	363	X	4/4/1904	Medium	7 and greater

km	Depth Group	Depth Count	Depth Average
0	Surface	1428	7.71
15	Shallow	1586	28.43
40	Medium	1275	62.20
100	Deep	368	152.14

Richter	Magnitude Group	Magnitude Count	Magnitude Average
0	<3	7	2.71
3	3 to 4	723	3.46
4	4 to 5	613	4.36
5	5 to 6	296	5.42
6	6 to 7	593	6.35
7	7 and greater	158	7.31

Part D1

Part D [14 points]

1. Write a formula to assign the **Magnitude Rating** to each row. [4]

=LOOKUP(Magnitude, Richter, Magnitude_Group)

2. Write the formula that produces the **Magnitude Average**. [5]

=SUMIF(Magnitude_Rating, Magnitude_Group, Magnitude) /Magnitude_Count

3. Write a formula to produce the **Long Date**. [5]
   The Excel DATE() function returns the serial date and has this syntax:

   DATE (year, month, day) - where year, month, and day are digits.

=DATE(Year, LEFT(Date,2), RIGHT(Date,2))