

Richter Scale

Directions

The richter scale is used to classify the magnitude of earthquakes. The table below lists magnitudes on the richter scale and a description of the damage that could occur with an earthquake of each magnitude.

Magnitude	Damage
greater than 8.0	Most structures fall
greater than 7.0	Most buildings destroyed
greater than 6.0	Many buildings considerably damaged; some collapse
greater than 4.5	Damage to poorly constructed buildings
greater than 3.5	Felt by many people, no destruction
greater than 0	Generally not felt by people

Write a program that allows a user to enter a magnitude on the richter scale and then prints out a description of the damage that would occur with an earthquake of that magnitude. The program should also print an error message, such as "This number is not valid", if the user enters a negative number.

Sample Output 1

```
Enter a magnitude on the Richter scale ==> 7.2
```

```
Damage = Most buildings destroyed
```

Sample Output 2

```
Enter a magnitude on the Richter scale ==> 3.5
```

```
Damage = Felt by many people, no destruction
```

Sample Output 3

```
Enter a magnitude on the Richter scale ==> -4
```

```
This number is not valid.
```