

1 Sonar Data Set

The Sonar data consist of 208 data points collected on 60 predictors. The goal is to predict the two classes The Sonar data consist of 208 data points collected on 60 predictors. The goal is to predict the two classes (M for metal cylinder or R for rock).

First, we split the data into two groups: a training set and a test set. To do this, the `createDataPartition` function is used

M Metal cylinder

R Rock

```
library(caret)
library(mlbench)
data(Sonar)
set.seed(107)
```

```
> head(Sonar)
```

	V1	V2	V3	V4	V5	V6	V7	V8
1	0.0200	0.0371	0.0428	0.0207	0.0954	0.0986	0.1539	0.1601
2	0.0453	0.0523	0.0843	0.0689	0.1183	0.2583	0.2156	0.3481
3	0.0262	0.0582	0.1099	0.1083	0.0974	0.2280	0.2431	0.3771
4	0.0100	0.0171	0.0623	0.0205	0.0205	0.0368	0.1098	0.1276
5	0.0762	0.0666	0.0481	0.0394	0.0590	0.0649	0.1209	0.2467
6	0.0286	0.0453	0.0277	0.0174	0.0384	0.0990	0.1201	0.1833