Concatenation, Five-Number summary, Standard Deviation

```
# We are commenting
# c() for entering dataset in R
# data={35, 8, 10, 23, 42}

data.1=c(35, 8, 10, 23, 42)
data.1
```

35 · 8 · 10 · 23 · 42

```
print(data.1)
```

```
[1] 35  8 10 23 42
```

```
# ignores spaces but removing comma will give error

data.1=c(35, 8, 10, 23,          42)
```

```
# five number summary
summary(data.1)
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
    8.0    10.0    23.0    23.6    35.0    42.0 
```

```
# calculating mean
mean(data.1)
```

23.6

```
# also mean
sum(data.1)/5
```

23.6

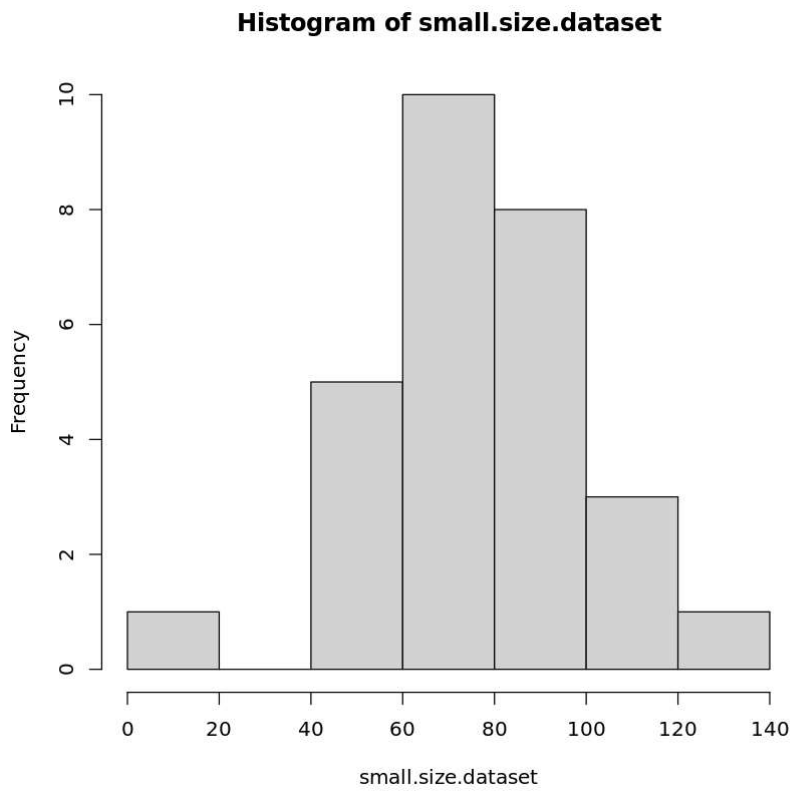
```
# sample standard deviation
sd(data.1)
```

14.9766484902331

Histogram

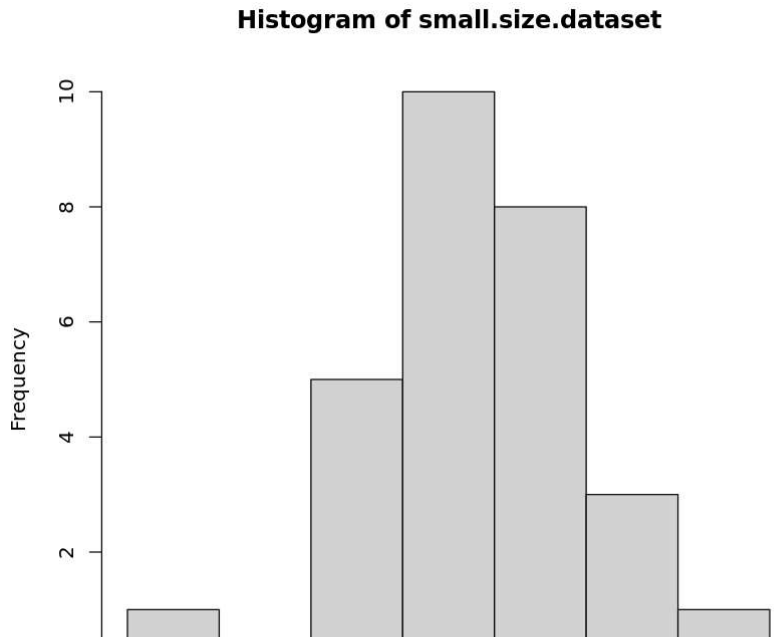
```
small.size.dataset = c(91, 49, 76, 112, 97, 47, 70, 100, 8, 112, 95, 90,
hist(small.size.dataset)
```

Download



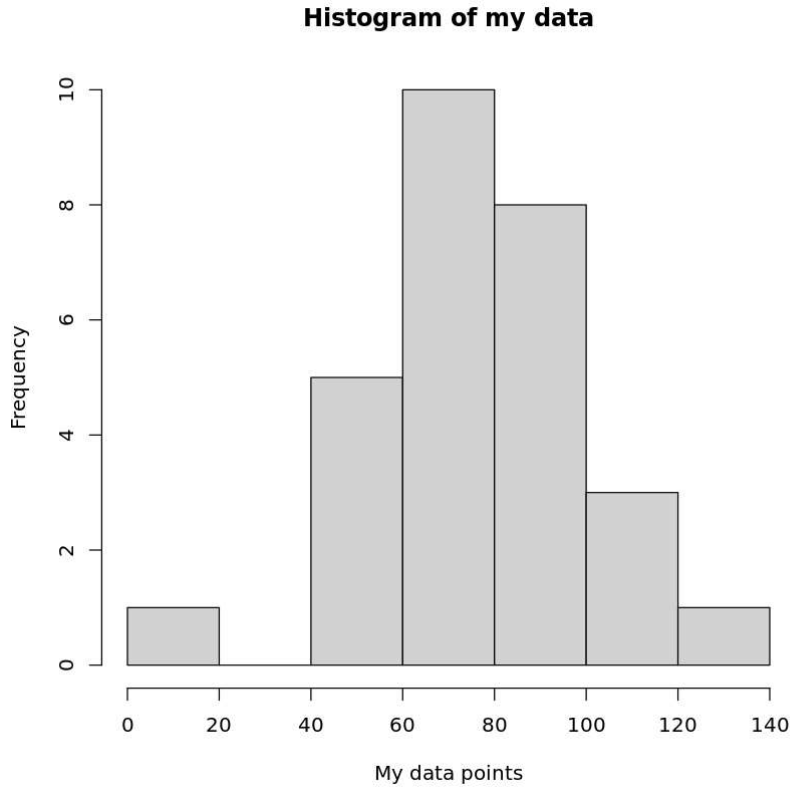

```
hist(small.size.dataset, xlab='My data points')
```

Download



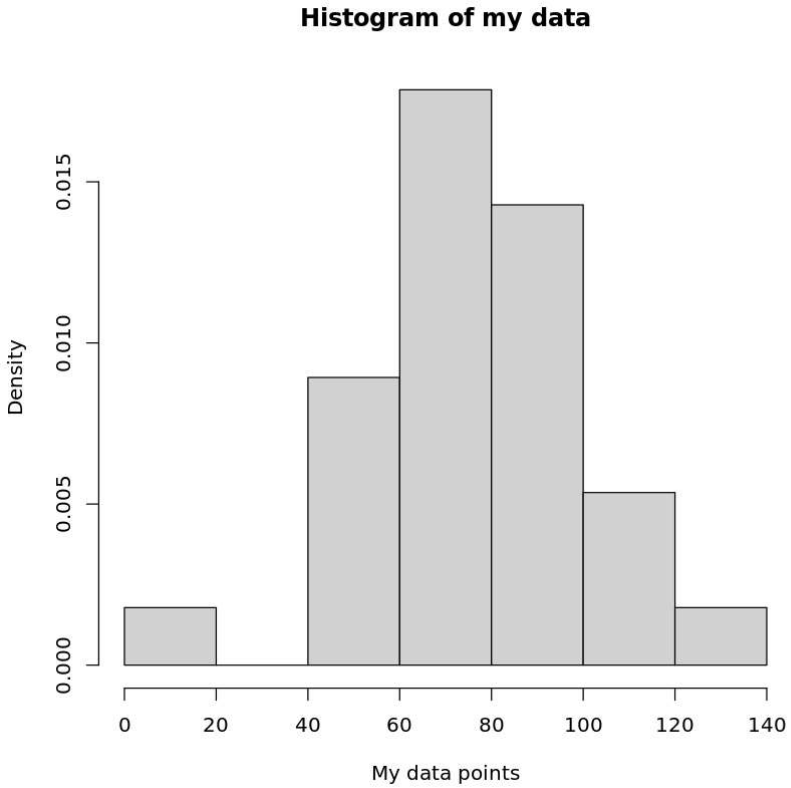

```
hist(small.size.dataset, xlab='My data points', main='Histogram of my da
```

Download



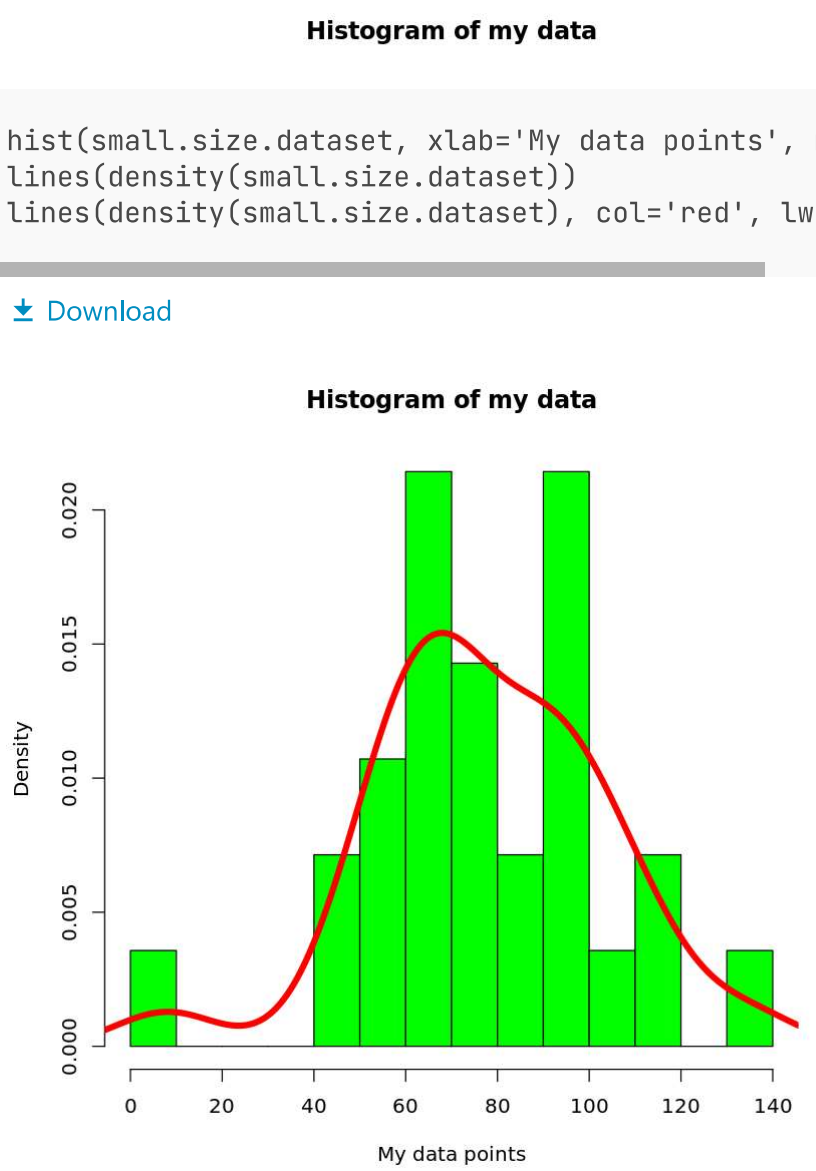

```
hist(small.size.dataset, xlab='My data points', main='Histogram of my da
```

Download




```
hist(small.size.dataset, xlab='My data points', main='Histogram of my da
```

Download




```
hist(small.size.dataset, xlab='My data points', main='Histogram of my da
lines(density(small.size.dataset))
lines(density(small.size.dataset), col='red', lwd=5)
```

Download

Scatterplot

```
set.seed=2016
Test_1_scores=round(rnorm(50, 78, 10))
Test_2_scores=round(rnorm(50, 70, 14))
```

```
Test_1_scores
```

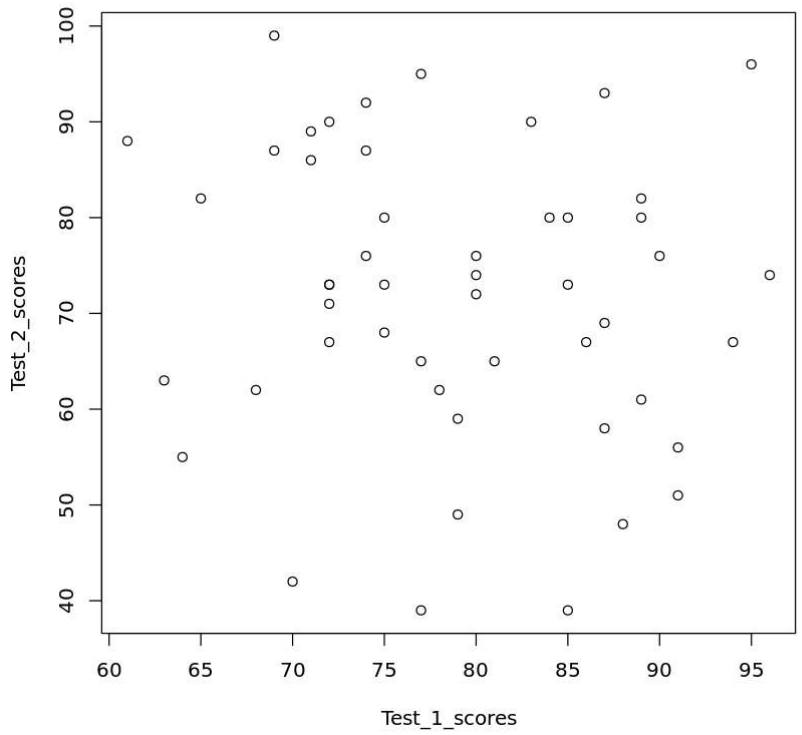
94 · 70 · 72 · 71 · 96 · 85 · 68 · 91 · 85 · 88 · 75 · 79 · 72 · 74 · 85 · 71 · 72 · 74 · 91 · 64 · 89 · 72 · 61 · 75 · 63 · 81 · 75 · 80 · 84 · 77 · 90 · 77 · 65 · 86 · 78 · 83 · 69 · 89 · 74 · 89 · 72 · 87 · 80 · 69 · 77 · 87 · 79 · 95 · 80 · 87

```
Test_2_scores
```

67 · 42 · 67 · 86 · 74 · 80 · 62 · 51 · 39 · 48 · 73 · 49 · 90 · 76 · 73 · 89 · 73 · 92 · 56 · 55 · 80 · 73 · 88 · 80 · 63 · 65 · 68 · 74 · 80 · 39 · 76 · 95 · 82 · 67 · 62 · 90 · 87 · 82 · 87 · 61 · 71 · 69 · 72 · 99 · 65 · 58 · 59 · 96 · 76 · 93

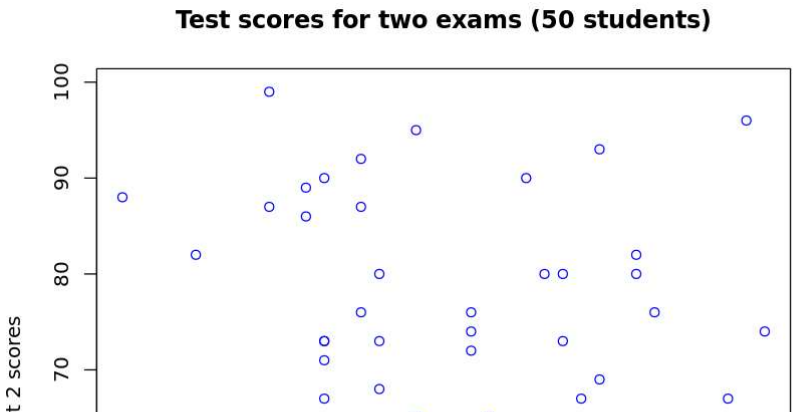
```
plot(Test_2_scores~Test_1_scores)
```

Download




```
plot(Test_2_scores~Test_1_scores, main='Test scores for two exams (50 st
```

Download


Test scores for two exams (50 students)
t 2 scores
100
90
80
70