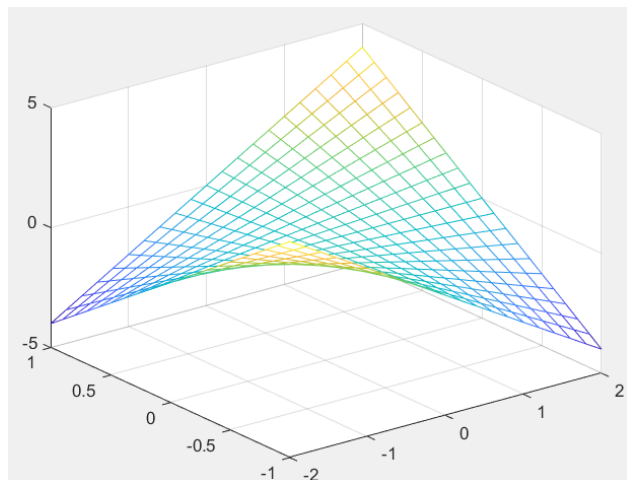1. See Fig.1

2.

```
y =
    27.5327
SSE: 0.099206
R-squared: 0.9976
```

3.

4.

```
scores =
    85    80    92    78
    80    85    90    88
    88    82    90    80
    80    70    92    86
avg =
    83.0500   85.6500   84.5000   81.7000
```

5.

```
Mean of mid-term scores: 82.25
Standard deviation of mid-term scores: 6.37
Mean of final scores: 83.61
Standard deviation of final scores: 7.02
```