

5

```
clc; clear;  
A = [4.041 7.046 3.014;  
     10.045 17.032 7.027;  
     16.006 27.005 11.048];
```

```
[U V D] = svd(A);  
V
```

```
V = 3×3  
    40.2854         0         0  
         0     0.1859         0  
         0         0     0.0051
```

```
A_hat = U(:, 1:2) * V(1:2, 1:2) * D(:, 1:2)'
```

```
A_hat = 3×3  
    4.0420    7.0450    3.0150  
   10.0426   17.0345    7.0245  
   16.0073   27.0037   11.0493
```

```
A_delta = A - A_hat
```

```
A_delta = 3×3  
   -0.0010    0.0010   -0.0010  
    0.0024   -0.0025    0.0025  
   -0.0013    0.0013   -0.0013
```