

```

clc
clear all
H = [0 0.25 0.5 0.75 1 1.5 2 2.5 3.0...
     3.5 4 4.5 5 5.5 6 6.5];
R = [0.52 0.92 1.13 1.25 1.33 1.38 1.32 1.29...
     1.26 1.25 1.24 1.25 1.27 1.32 1.43 1.68 ];

```

```
R_inp=spline(H,R);
```

```
HH=0:0.001:6.5;
```

```
RR=ppval(R_inp,HH);
```

```
RR2pi=pi*RR.*RR;
```

```
volume=trapz(HH,RR2pi)*(2.54)^3
```

```
%%%%%%%%%
```

```

H = [0 0.25 0.5 0.75 1 1.5 2 2.5 3.0...
     3.5 4 4.5 5 5.5 6 6.5];
R = [0.52 0.92 1.13 1.25 1.33 1.38 1.32 1.29...
     1.26 1.25 1.24 1.25 1.27 1.32 1.43 1.68 ];

```

```
HH=0:0.001:6.5;
```

```
pp=polyfit(H,R, length(H)-1);
```

```
RR=polyval(pp,HH);
```

```
RR2pi=pi*RR.*RR;
```

```
volume=trapz(HH,RR2pi)*(2.54)^3
```

```
volume =
```

```
554.8860
```

```
Warning: Polynomial is badly conditioned. Add points with distinct X
values, reduce the degree of the polynomial, or try centering
and scaling as described in HELP POLYFIT.
```

```
volume =
```

```
533.6506
```

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