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Aero 215 Midterm 2

```
%Liam Hood
%Dragon capsule rendevous with the ISS
clear all;
clc;
```

Given and Initial Values

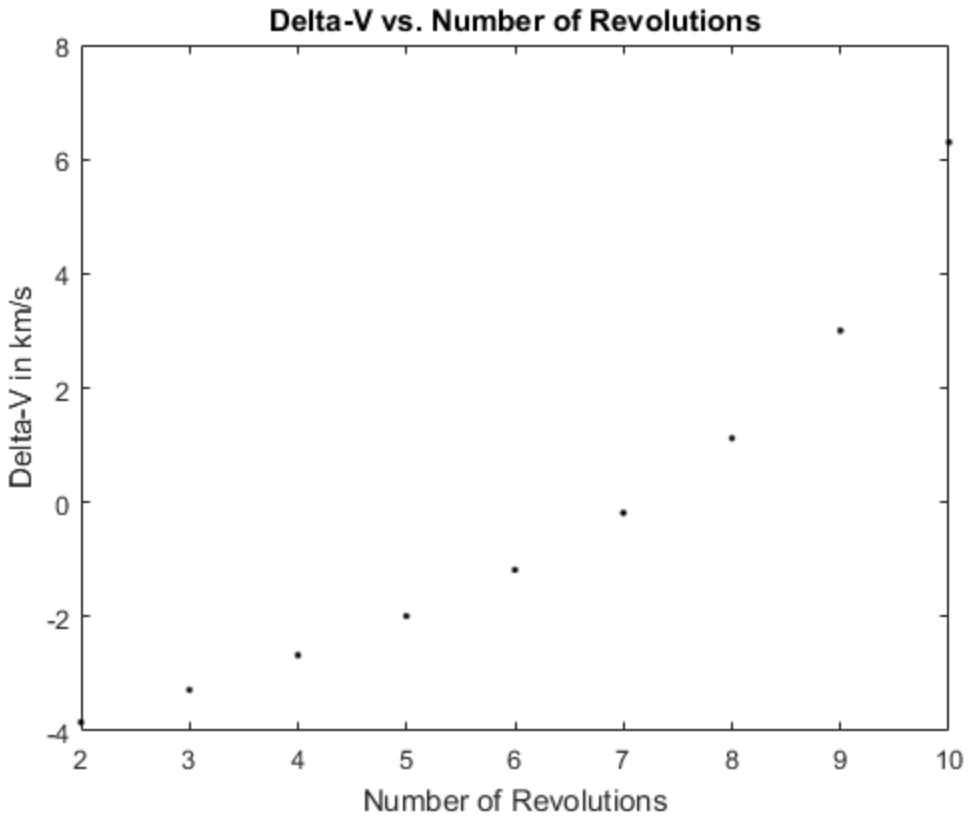
```
r_circ = 10000 ; %radius of the circular orbit that both S/C begin
in (km)
r_e = 6378 ; %radius of earth (km)
mu = 398600 ; %km^3/s^2
ta_lead = 90 ; %degrees of true anomaly dragon is behind ISS
```

Delta-V for different levels of patience

```
n = 1 ; %number of revolution
while n < 10
    n = n + 1 ;
    [ delta_v ] = rendevous( r_circ , r_e , mu , ta_lead , n );
    plot( n , delta_v , '.k' )  ; hold on
    xlabel( 'Number of Revolutions' )
    ylabel( 'Delta-V in km/s' )
    title( 'Delta-V vs. Number of Revolutions' )

end
```

```
You messed up and hit earth
You messed up and hit earth
You messed up and hit earth
You messed up and hit earth
```



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