

Lab 6

Euler's Method

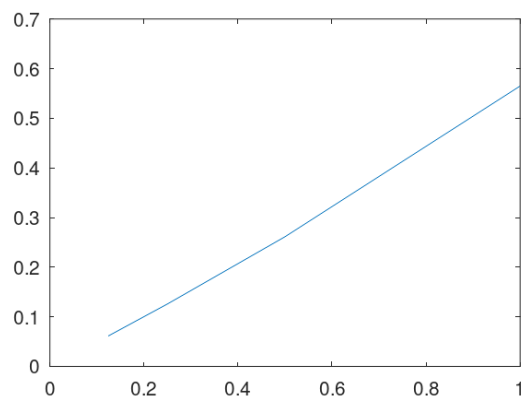
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Compute the errors

```
>> v_errors = euler_method()  
delta_ts =  
  
    1.0000    0.5000    0.2500    0.1250  
  
v_errors =  
  
    0.564917    0.261286    0.125819    0.061757
```

Plot the error as a function of Δt .



The plot looks linear and we can see the line go to zero as $\Delta t \rightarrow 0$ when it is extended.