

Figure 1: Comparison between $y(t)$ at different step-size h

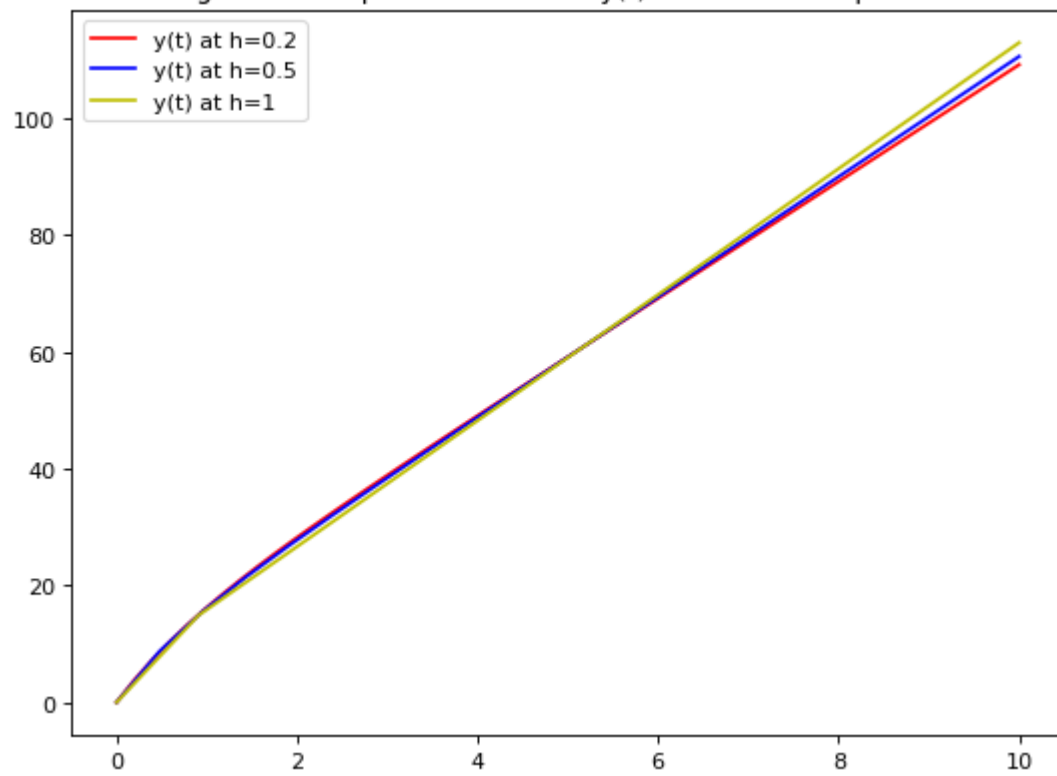
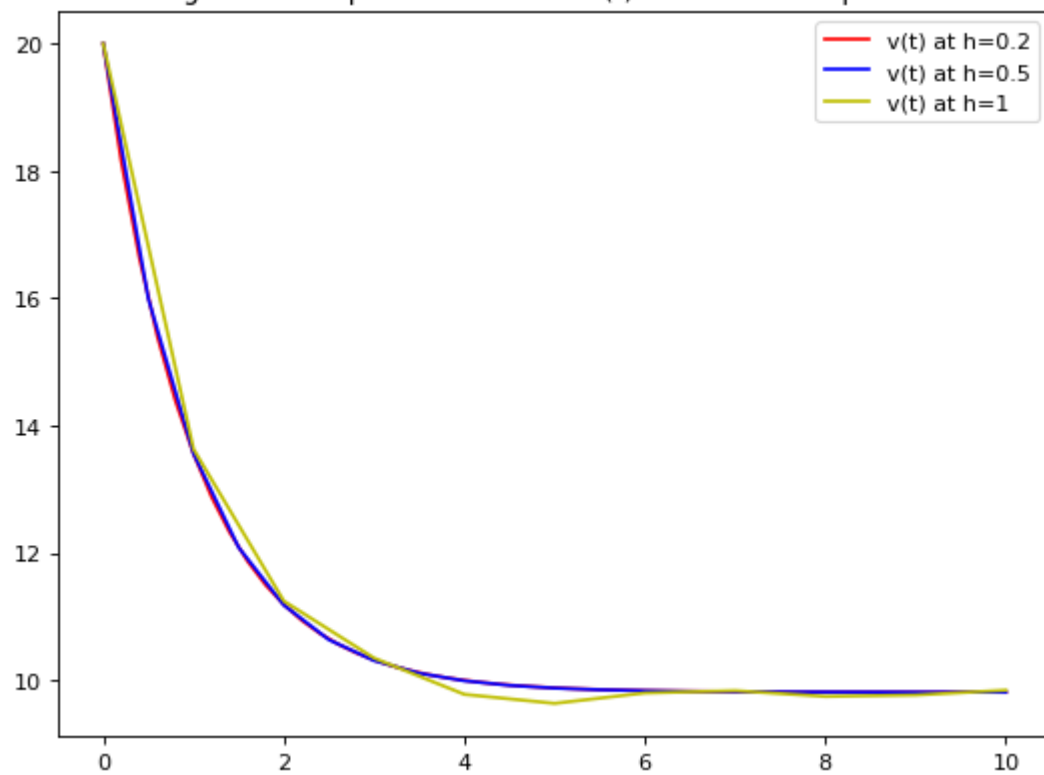


Figure 2: Comparison between $v(t)$ at different step-size h



The plot comparison above shows the differences between all $v(t)$ and between all $y(t)$ using Predictor-Corrector method. In the first figure that represents $y(t)$ at different h shows that all $y(t)$ has some similarities and seem to unite somewhere near $t = 0$ and between $t = 4$ and $t = 6$. It also shows a significant difference when $t = 0$ and $t = 10$. In addition, all of the curves at the first figure looks smooth except at color yellow that is when $h = 1$. On the other hand, the second figure shows the differences and similarities between all values of $v(t)$ at different value of step-size, h . The values of $v(t)$ at different h seem to unite at $t = 0$, somewhere in between $t = 6$ and $t = 8$. It also shows a less significant similarities between $t = 1$ and $t = 2$. The above curves looks smooth except to color yellow that is when $h = 1$. As a conclusion, the authors observe that as the values of step-size h is getting smaller, the values of both $y(t)$ and $v(t)$ will be getting smoother. Having a step size that is equal to 1 would not be recommended.

