```
> restart;
> f:=(x,y)->0.2*x*y;
```

$$f := (x, y) \rightarrow 0.2\, x\, y$$

```
> x[0]:=1;
  y[0]:=1;
```

$$x_0 := 1$$

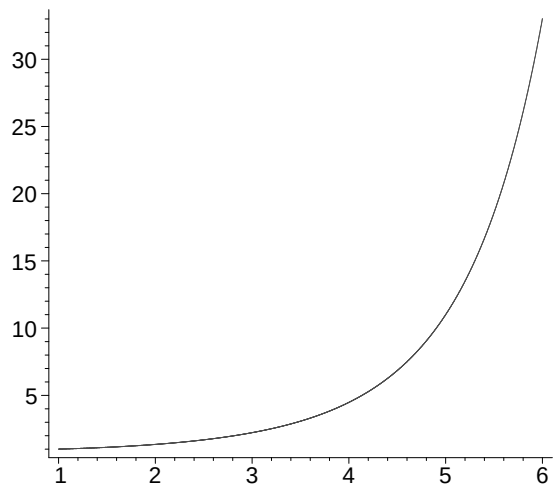
$$y_0 := 1$$

```
> n:=4000;
  h:=5.0/n;
```

$$n := 4000$$

$$h := 0.001250000000$$

```
> for i from 0 to n-1 do
     x[i+1]:=x[0]+h*(i+1);
     y[i+1]:=y[i]+h*f(x[i],y[i]);
  od:
> plot([seq([x[i],y[i]],i=0..n)]);
```




```
> x[n]; y[n];
```

$$6.000000000$$

$$33.03558176$$

```
> correctans:=exp(-0.1)*exp(6^2*0.1);
```

$$correctans := 33.11545195$$

```
> AbsError:=abs(correctans-y[n]);
```

$$AbsError := 0.07987019$$

```
> RelError:=AbsError/correctans;
```

$$RelError := 0.002411870752$$

```
>
```