

```
/* 3) */
```

```
/* a) */
```

```
data y;  
do x = 0 to 10 by 0.1;  
    y = (3 * sin(x)) - (5 ** 2) + 10;  
    output;  
end;
```

```
title 'a)';  
proc gplot data=y;  
    plot (y)*x;  
run;
```

```
/* b) */
```

```
data y;  
    Interest = 0.04;  
    Annual_investement = 1000;  
    Total = 0;  
    Year = 0;  
    current_quarter = 1;  
do until (Total ge 5000);  
    current_quarter = 1;  
    Total = Total + Annual_investement;  
do until (current_quarter ge 5);  
    Total = Total + (Total * Interest);  
    output;  
    current_quarter = current_quarter + 1;  
  
end;  
    Year = Year + 1;  
end;  
run;
```

```
title 'b) It takes 3 years to reach >= $5000';  
proc print data=y noobs;  
run;
```