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> # Maple Worksheet for maple lab 3, data set 1
> restart;
> opts:=color=[red,blue],style=[point,line],symbolsize=16,
thickness=3: # Plot options
> # Repeat the example for data set 1, size 101.
# Download DataSet1.txt from the course web page, week 8.
# Write down where you saved it! Use the complete path name.
> myfile1:= "./DataSet1.txt"; # Warning: CHANGE IT!
> DataSet1 :=readdata(myfile1,2); # Read 2-column data in format t,
y (t)
> nops(DataSet1); # Number of data items
> plot(DataSet1,color=red,style = point,symbolsize=16 );
> c:=0:d:=10: # Domain endpoints, read from the graphic
> M1:=Matrix(DataSet1);
> a1:=M1.<1,0>; # Data column for t-values
> b:=M1.<0,1>; # Data column for y(t)-values
> a2:=<seq(1,i=1..101)>; # Column vector of ones
> A:=<a1|a2>;
> v:=(A^+.A)^(-1).(A^+.b); # Solve the normal equations
> y:=v[1]*x+v[2]; # Best-fit line equation
y := 1.98780239443844 x + 1.13724688681770
> plot([DataSet1,y],x=c-1..d+1,opts);

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(1)

