Fibonacci.m

```
function F = Fibonacci(n)
% function F = Fibonacci(n)
%
%  Computes the first n Fibonacci numbers and returns them as a vector F.
%
%  F(1) = 0, F(2) = 1, and, thereafter, F(k) = F(k-1)+F(k-2).
%
%  Note: n should be 2 or larger.

% Initialize the sequence with the first 2 Fibonacci numbers.

F(1) = 0;
F(2) = 1;

% Now compute the remaining Fibonacci numbers up to n.

for k = 3:n
    F(k) = F(k-1) + F(k-2);
end

% return to where the function was called

return
```

FibonacciDemo.m

```
% Script for calling the function Fibonacci and plotting the results.
% (Or just type the commands into the MATLAB command window.)

% Get the first 10 Fibonacci numbers:
% Call Fibonacci and assign the result to a vector F.
% (The vector does not have to be called F.)

F = Fibonacci(10);

% Plot the vector F.

plot(F);
```

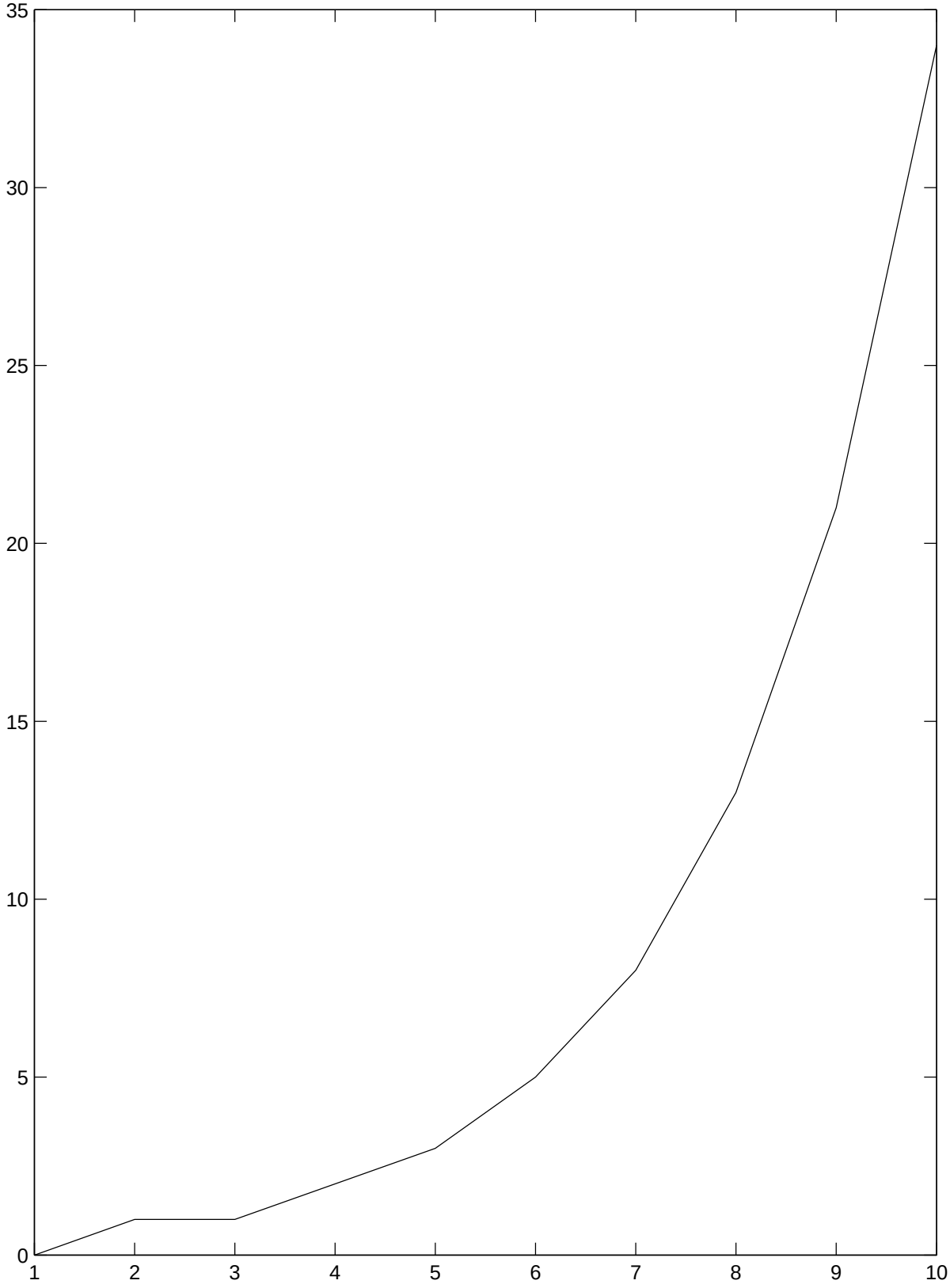

Figure 1: Screen output from `FibonacciDemo.m` which uses `Fibonacci.m`.