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% Written By Oscar Dahlberg
% For course M0047M at LTU
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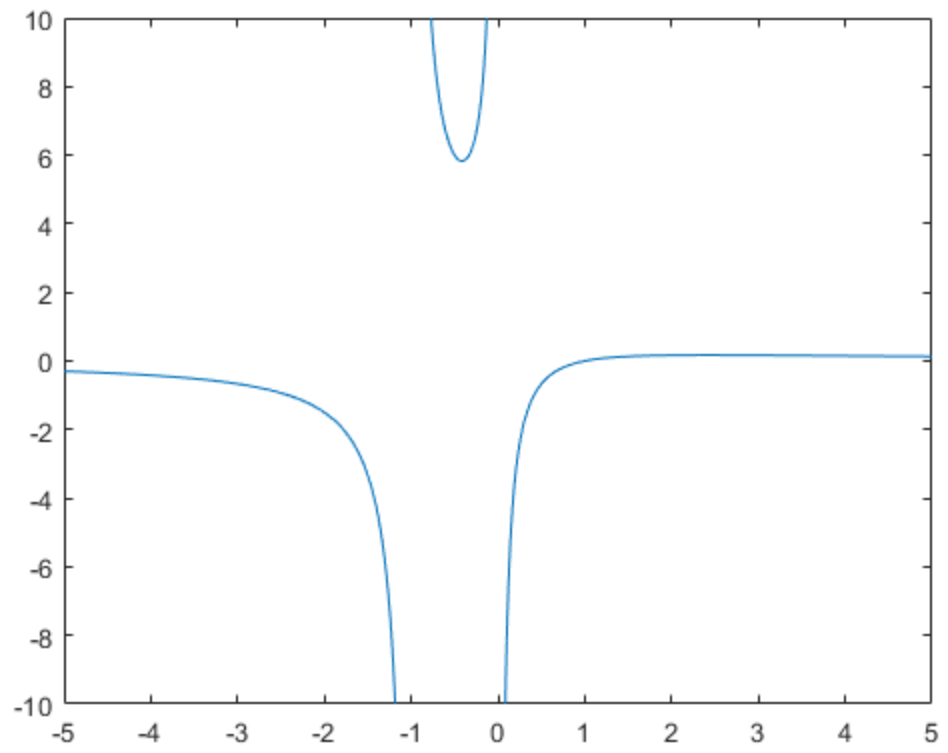
```
disp("P4.48 Finding the range of  $(x - 1)/(x.^2 + x)$ ")
f = @(x) (x - 1)./(x.^2 + x);

disp("Instead of a line we will create a line of dots")
disp("This will be used to find the maximum value of x")
x = -5:0.01:5;
y = f(x);
plot(x, y)
axis([-5, 5, -10, 10]);

disp("We flip the graph to make use of the matlab")
disp("function 'fminbnd' which returns the smallest value")
f_negativ = @(x) -f(x);
xmax = fminbnd(f_negativ, 1,3);

disp("Now we have found the maximum range,")
disp("The minimum can be found through looking at the graph")
disp("Then we quickly realize its negative infinity")
disp("range = (-Inf, " + f(xmax) + " ]")
```

```
P4.48 Finding the range of  $(x - 1)/(x.^2 + x)$ 
Instead of a line we will create a line of dots
This will be used to find the maximum value of x
We flip the graph to make use of the matlab
function 'fminbnd' which returns the smallest value
Now we have found the maximum range,
The minimum can be found through looking at the graph
Then we quickly realize its negative infinity
range = (-Inf, 0.17157]
```



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