countercurrent.m

```
function f = countercurrent( x )
%f(1) = left-hand side of Eq. (5) written in the form LHS = 0
%f(2) = left-hand side of Eq. (6) written in the form LHS = 0
%x(1) = (V_benz)_1
%x(2) = (V_benz)_2

%Eq. (5)
f(1) = x(1) / (0.90 + x(1)) - 2.5 * (x(2) - x(1)) / (2 + x(2) - x(1));

%Eq. (6)
f(2) = x(2) / (0.90 + x(2)) - 2.5 * (0.10 - x(1)) / (2 + 0.10 - x(1));

end
```

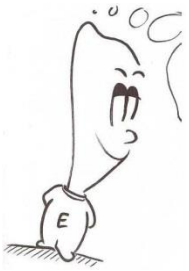
solve.m

```
fun = @countercurrent;
x0 = [0.1,0.1];
x = fsolve(fun,x0)
```

Session

```
>> solve

Equation solved.

fsolve completed because the vector of function values is near zero
as measured by the default value of the function tolerance, and
the problem appears regular as measured by the gradient.

<stopping criteria details>

x =

    0.0387    0.0723

>>
```

Comments



How *very* nice!