For Fogler 2-5 and 6-6

In the first problem, Fogler 2-5, the textbook asks to use the figure to calculate the conversions. However, the figure itself has problems such as not matching with the table above it (less data points and one misrepresented point) and difficult to get accurate results. You are required to use the values in the table instead of the figure and Matlab to solve this problem. The use of matlab involves numerical interpolation (by command interp1, together with a spline scheme to get a smooth interpolation), numerical integration (quad), and numerical solution to equations (fzero). These will be also used in the RTD problem. Of course, any method getting the accurate results will be accepted.

A sample code (showing you how to use these functions) is as follows:

```
x0=fzero(@equation,1)
y=quad(@curve,0,1);%to integrate function curve(x) with x from 0 to 1

function y=curve(x)
data=[1 2 3 4 5;1.1 2.1 3.01 4.03 5.2]';
y=interp1(data(:,1),data(:,2),x,'spline');
return
function y=equation(x)
t=0.3;y=curve(x)*x-t;
return
```

In the problem of Fogler 6-6, plot the selectivities vs. concentrations using Matlab, not by crude sketching. This will help you in understanding the obscure problem statement better.