boiling_curve.pdf

variables:

excesstemp – user inputs this value
m for slope
heatflux for calculating heat flux

First allow the user to input a variable named the excess temperature

Next my program will calculate the surface heat flux to 4 sig figs
To find surface heat flux I need the following equation
And i need to set up an if statement for temperatures less than 0

Now create an elif statement for if the temperature is between points A and C
Using the equation provided I will solve for m with points A and B and than I will
plug in the Slope M into the Heat flux formula that we were also given

Now create in elif statement for if the temperature is between points B to C

Now im going to create another elif statement to calculate the heat flux when
Excess temperature is between points C and D on the graph.

Now im going to create another elif statement to calculate the heat flux when
Excess temperature is between points D and E on the graph.

Now im going to create an else statement after all my elif statements to print that
a result is not available for any excess temperature greater than 1200

TESTS

Excessheat (10) = 55828 W/m^2
Excessheat (50) = 331798 W/m^2
Excessheat (100) = 42835 W/m^2
Excessheat (150) = 37176 W/m^2
Excessheat (200) = 62004 W/m^2
Excessheat (250) = 92202 W/m^2
Excessheat (300) = 127508 W/m^2
Excessheat (400) = 212666 W/m^2
Excessheat (600) = 437335 W/m^2
Excessheat (900) = 899355 W/m^2