

## Quiz 12.2 – Enthalpies of Phase Change and Heating Curves

Name: \_\_\_\_\_

**Question 1**

Solid paraffin wax has a specific heat of  $2.5 \frac{J}{g K}$ . If  $300.0 J$  of heat are added to  $15.25 g$  of paraffin wax, how much will the temperature raise?

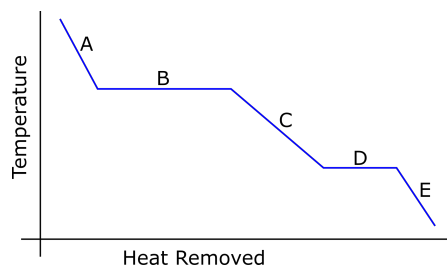
**Question 2**

Paraffin wax has a melting point of  $37^\circ C$ , and  $\Delta H_{fus} = 210 \frac{J}{g}$ . How many  $J$  of heat are required to melt  $5.75 g$  of paraffin wax?

**Question 3**

Table 12.3 in your textbook gives the necessary values to answer this question

$38.0 kJ$  of heat are removed from a  $10.0 g$  sample of steam (water vapor) at  $250.0^\circ C$ . Give the total energy for each of the steps labeled A through E on the cooling curve below, and give the final phase and temperature of the water



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锄禾日当午，  
汗滴禾下土。  
谁知盘中餐，  
粒粒皆辛苦。

Farmers weeding at noon,  
Sweat down the field soon.  
Who knows food on a tray  
Thanks to their toiling day?