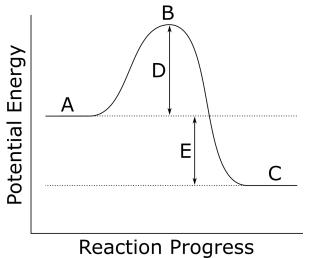
Name:	

Question 1

Name the two conditions required for a molecular encounter to lead to reaction



Question 2

Give the name for each item labeled on the reaction coordinate diagram at left

A:

B:

C:

D:

E:

A reaction is carried out at two temperatures, with the rate constant carefully measured. Data are given below:

$$\begin{array}{c|ccccc}
T (^{\circ}C) & k (M^{-1}s^{-1}) \\
\hline
15.00 & 1.6 \times 10^{-4} \\
42.00 & 8.7 \times 10^{-4}
\end{array}$$

Question 3

Give the activation energy and frequency factor for this reaction

Question 4

What is the overall reaction order for the reaction from Question 3?

Who Has Seen the Wind?

By Christina Rossetti

Who has seen the wind? Neither I nor you: But when the leaves hang trembling, The wind is passing through.

Who has seen the wind? Neither you nor I: But when the trees bow down their heads, The wind is passing by.