## Answer Key: Arrhenius Equation Problems

1. a)

b) $\mathrm{m}=-22670$ (using first 2 points) $\mathrm{m}=-21836 \mathrm{~K}$ (using first and last point) $\mathrm{E}_{\mathrm{A}}=188500 \mathrm{~J} / \mathrm{mol}$ (using first two points slope)
c) - find $y$-intercept then isolate
$-\ln \mathrm{K}=-\mathrm{E}_{\mathrm{A}} / \mathrm{RT}+\ln \mathrm{A}$ (isolate and calculate for A$)$

$\mathrm{E}_{\mathrm{A}}=164.273 \mathrm{~kJ} / \mathrm{mol}$ (using first two points)
$\mathrm{E}_{\mathrm{A}}=177 \mathrm{~kJ} / \mathrm{mol}$ (using 1st and last point)

