Name_____Section_____

Partner_____

CHM 112 Kinetics: Concentration Effect Report Form

$[I^-]$ Effect:

Initial Concentrations in flask: $[S_2O_3^{2-}]$ _____ $[H_2O_2]$ _____

Flask	Initial $[I^-]$	Time of clock reaction in s	Rate
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

Attach graph of ln (Rate) vs. ln $[I^-]$ Slope of best straight line _____

Order of reaction: with respect to I^- _____

$[H_2O_2]$ Effect:

Initial Concentrations in flask: $[S_2O_3^{2-}]$ _____ $[I^-]$ _____

Flask	Initial $[H_2O_2]$	Time of clock reaction in s	Rate
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

Attach graph of ln (Rate) vs. ln $[H_2O_2]$ Slope of best straight line

_____

Order of reaction with respect to H_2O_2 _____

Calculate rate constant (k) using the orders of the reaction determined above:

Flask #	1	2	3	4
$[I^-]$ Effect trials	_____	_____	_____	_____
$[H_2O_2]$ Effect trials	_____	_____	_____	_____

Average rate constant from all trials: _____