

I		II		III	
Time, s	[A], M	Time, s	[A], M	Time, s	[A], M
0	1.00	0	1.00	0	1.00
25	0.78	25	0.75	25	0.80
50	0.61	50	0.50	50	0.67
75	0.47	75	0.25	75	0.57
100	0.37	100	0.00	100	0.50
150	0.22			150	0.40
200	0.14			200	0.33
250	0.08			250	0.29

Which of these sets of data corresponds to a (a) zero-order, (b) first-order, (c) second-order reaction?

What is the value of the rate constant k of the zero-order reaction?

What is the approximate half-life of the first-order reaction?

What is the approximate initial rate of the second-order reaction?

What is the approximate rate of reaction at $t = 75$ s for the (a) zero-order, (b) first-order, (c) second-order reaction?

What is the approximate concentration of A remaining after 110 s in the (a) zero-order, (b) first-order, (c) second-order reaction?