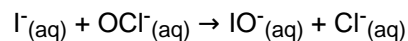


Directions: Read the passage below and answer the question(s) that follow.

## Ch.12-26

## Intro

The reaction



was studied, and the following data were obtained:

$[\text{I}^-]_0$	$[\text{OCl}^-]_0$	Initial Rate
mol/L	mol/L	mol / L•s
0.12	0.18	$7.91 \cdot 10^{-2}$
0.060	0.18	$3.95 \cdot 10^{-2}$
0.030	0.090	$9.88 \cdot 10^{-3}$
0.24	0.090	$7.91 \cdot 10^{-2}$

1 What is the order of the reaction with respect to  $\text{I}^-$ ?

- A. 0
- B. 1
- C. 2
- D. 3

2 What is the order of the reaction with respect to  $\text{OCl}^-$ ?

- A. 0
- B. 1
- C. 2
- D. 3

3 Write the rate law for the reaction.

4 Calculate the rate constant for the reaction.

- A. 31
- B. 20.
- C. 9.9
- D. 3.7

Directions: Read the passage below and answer the question(s) that follow.

## Ch.12-28

### Intro

The following data was obtained for the reaction



[ClO<sub>2</sub>]<sub>0</sub> [OH<sup>-</sup>]<sub>0</sub> Initial Rate

mol/L	mol/L	mol / L•s
0.0500	0.100	5.75•10 <sup>-2</sup>
0.100	0.100	2.30•10 <sup>-1</sup>
0.100	0.0500	1.15•10 <sup>-1</sup>

5 What is the order of the reaction with respect to ClO<sub>2</sub>?

- A. 0
- B. 1
- C. 2
- D. 3

6 What is the order of the reaction with respect to OH<sup>-</sup>?

- A. 0
- B. 1
- C. 2
- D. 3

7 What is the value of the rate constant for this reaction?

- A. 12
- B. 120
- C. 230
- D. 2300

8 Calculate the initial rate for an experiment with [ClO<sub>2</sub>]<sub>0</sub> = 0.175 mol/L and [OH<sup>-</sup>]<sub>0</sub> = 0.0844 mol/L.