

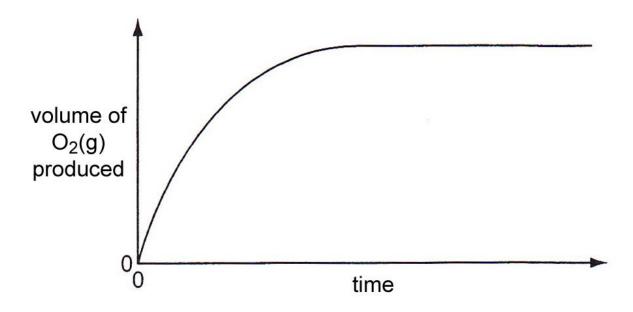
Name: () Chem!stry Class: Date: / /

Rate of Reaction Graphs - Two

Hydrogen peroxide decomposes into water and oxygen according to the following balanced chemical equation:

$$2H_2O_2(aq) \rightarrow 2H_2O(I) + O_2(g)$$

The graph given below is for the decomposition of 20.0 cm³ of 1.0 mol/dm³ hydrogen peroxide at room temperature, without a catalyst.



- 1. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm³ of 1.0 mol/dm³ hydrogen peroxide at 50.0 °C, without a catalyst. Label A.
- 2. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm³ of 1.0 mol/dm³ hydrogen peroxide at 10.0 °C, without a catalyst. Label **B**.
- 3. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm³ of 1.0 mol/dm³ hydrogen peroxide at room temperature, with a catalyst. Label **C**.
- On the axes given above, sketch the graph that would be obtained for the decomposition of 10.0 cm³ of 1.0 mol/dm³ hydrogen peroxide at room temperature, without a catalyst. Label **D**.
- 5. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm³ of 0.5 mol/dm³ hydrogen peroxide at room temperature, without a catalyst. Label E.
- 6. On the axes given above, sketch the graph that would be obtained for the decomposition of 7.50 cm³ of 2.0 mol/dm³ hydrogen peroxide at room temperature, without a catalyst. Label F.