

Name:

Date:

Gas Volumes

GCSE CHEMISTRY

Mark

Grade

Materials

For this paper you must have:

- Ruler
- Pencil and Rubber
- Scientific calculator, which you are expected to use when appropriate

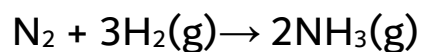
Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown

Information

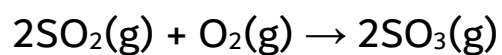
- The marks for the questions are shown in brackets

1. Find the volume of hydrogen gas that reacts with 200 cm³ of nitrogen gas measured at the same temperature and pressure.



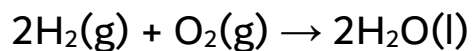
Answer:

2. Find the volume of oxygen gas that reacts with 10 dm³ of sulfur dioxide gas measured at the same temperature and pressure.



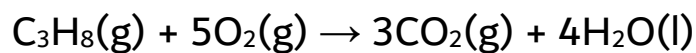
Answer:

3. Find the volume of hydrogen gas that reacts with 160 cm³ of oxygen gas measured at the same temperature and pressure.



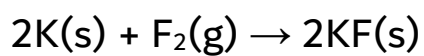
Answer:

4. Find the volume of CO₂ gas formed (at room temperature and pressure) when 10.0 g of propane burns in oxygen.



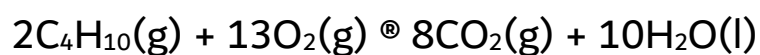
Answer:

5. Find the mass of potassium fluoride formed when 120 cm³ of fluorine gas (at room temperature and pressure) reacts completely with potassium.



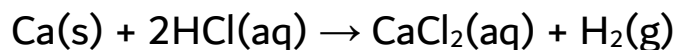
Answer:

6. Find the volume of oxygen gas that reacts with 4.0 dm³ of butane (C₄H₁₀) gas measured at the same temperature and pressure.



Answer:

7. Find the volume of hydrogen gas (measured at room temperature and pressure) formed when 0.540 g of calcium reacts with hydrochloric acid.



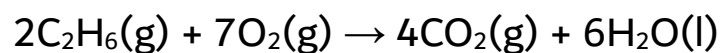
Answer:

8. Find the volume of carbon dioxide gas (measured at room temperature and pressure) formed when 1.50 g of calcium carbonate reacts with hydrochloric acid.



Answer:

9. Find the volume of carbon dioxide gas (measured at room temperature and pressure) formed when 6.00 kg of ethane (C₂H₆) burns in oxygen.



Answer:

10. Find the mass of the following gases (measured at room temperature and pressure).

a) 7.20 dm³ of ammonia (NH₃)

Answer:

b) 480 cm³ of nitrogen (N₂)

Answer:

c) 100 cm³ of oxygen (O₂)

Answer: