Worksheet 2

Name Class Date

**1** Complete the section below about the complete combustion of methane.

Fill in the gaps using the correct answers. Use words from the word bank.

**Word bank**

|  |  |  |  |
| --- | --- | --- | --- |
| Complete | Dioxide | Fraction | fuel |
| Incomplete | Light | Oxidation | water |

Methane is obtained from the refinery gases \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is defined as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because energy is released when it is burned. Burning is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaction which is also known as combustion. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ combustion is when a substance burns in plenty of air or oxygen.

The products formed during the complete combustion of methane are carbon dioxide and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The word equation is:

methane  oxygen → carbon dioxide  water

Energy is also transferred by heat and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the surroundings during the combustion of methane.

**2** Balance the following equations showing complete combustion.

Fill in the gaps with numbers. Some values have been added to help you.

**a** C2H4  \_\_\_\_\_O2 → \_\_\_\_\_CO2  2H2O

**b** C3H8  \_\_\_\_\_O2 → 3CO2  \_\_\_\_\_H2O

**c** 2C4H10  \_\_\_\_\_O2 → \_\_\_\_\_CO2  \_\_\_\_\_H2O

**d** C5H12  8O2 → \_\_\_\_\_CO2  \_\_\_\_\_H2O