

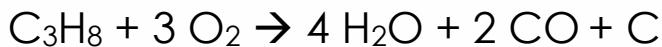
1. Read the question and the student's answer carefully.
2. Use the mark scheme to award the student a number of marks and annotate their answer with suggestions to improve.

**Stretch:** Rewrite the answer to show how it should be done!

**Question:**

Propane is an alkane.

Two equations for the combustion of propane are shown below.



- a. Explain why there are different products formed in these reactions. (2)
- b. The products CO and CO<sub>2</sub> can both have negative consequences. Explain how. (4)

**Student answer:**

a) The top reaction is complete combustion and the bottom reaction is incomplete combustion

b) CO is harmful to humans

CO<sub>2</sub> causes global warming

**Marks awarded=** \_\_\_\_\_

**Mark scheme:**

a.

<b>Point</b>	<b>Mark</b>
Complete vs incomplete combustion	1
Not enough oxygen/air is available (in incomplete combustion)	1

b.

<b>Point</b>	<b>Mark</b>
CO (carbon monoxide) is toxic/poisonous	1
CO stops oxygen being carried around the body	1
Carbon dioxide is a greenhouse gas	1
Increasing greenhouse gas emissions are contributing to global warming	1