

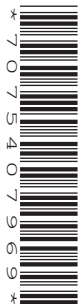


Oxford Cambridge and RSA

**Level 3 Certificate**  
**Quantitative Reasoning (MEI)**  
**H866/01** Introduction to Quantitative Reasoning

Insert

**Wednesday 16 May 2018 – Morning**



**NOTES FOR GUIDANCE (CANDIDATES)**

- This insert contains a copy of the pre-release material for use with the question paper.
- This document consists of **4** pages.

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**Determining the age of a foetus**

When women are pregnant it is very important to find the expected date of birth (which is normally estimated as 40 weeks after conception). To do this a variety of methods can be used to find the age of a foetus. For example:

- calculations based upon a woman's menstrual cycles,
- tests of hormones found in a pregnant woman's urine,
- measurements of the foetus made using ultrasound.

**Credit card commission**

When credit cards are used abroad a commission is charged. For example, if the commission charged was 2% then something which costs \$100 in a shop would have a charge of \$102 debited from the credit card. This would then have to be converted into pounds before the credit card bill is paid.

**Measuring speed and acceleration**

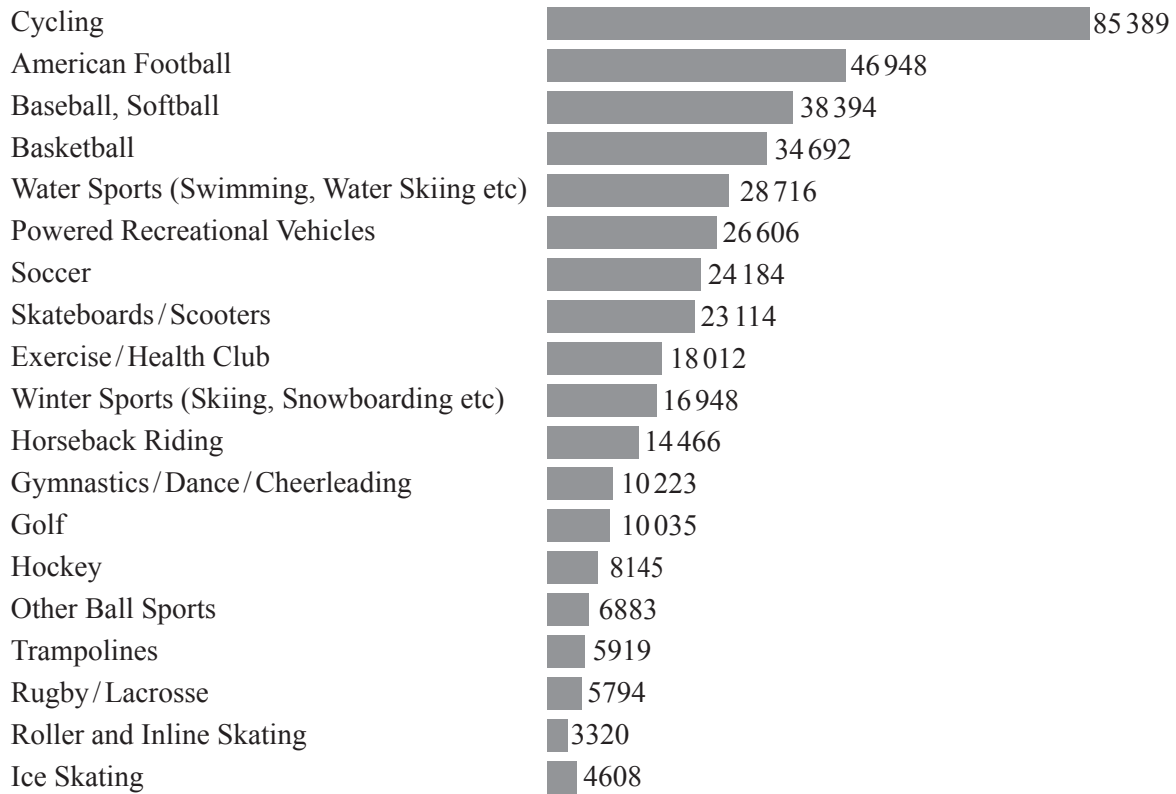
Speed can be measured using units such as mph, metres per second,  $\text{km h}^{-1}$  or km/minute.

Acceleration (and deceleration) is measured in units such as  $\text{ms}^{-2}$  or kilometres/hour<sup>2</sup>.

## Head injuries in the USA

The graph below shows the number of admissions to the Emergency Room (Accident and Emergency department) for head injuries sustained while playing sport in the USA in 2011.

### Number of admissions to Emergency Room for head injuries



Source: The Guardian Newspaper

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