Age 11+ Level ★★
Worksheet 3

1. **Tyre Wear**
    A car with 5 tyres (four road tyres and a spare) travelled 30000km.
    All 5 tyres were used equally. How many kilometres' wear did each
    tyre receive?

2. **Millennium Leap**
    Leap years normally occur every four years. However, years at the
    turn of a century are leap years only if they are multiples of 400.
    Therefore, 2000 was a leap year but the year 1900 was not. How
    many leap years will there be between 2001 and 3001?

3. **Off the Cuff**
    A long-sleeve shirt has 8 front buttons and 2 cuff buttons.
    A short-sleeve shirt has 6 front buttons and no cuff buttons.
    The factory which makes 'Slimboy Shirts' uses 10 times as many
    front buttons as cuff buttons.

    What is the ratio of long-sleeve shirts to short-sleeve shirts produced
    by the factory?

4. **A Leg to Stand On**
    In the *Soft Boulder Cafe* each table has 3 legs, each chair has 4 legs
    and all the customers and the three members of staff have two legs
    each. There are four chairs at each table.

    At a certain time, three-quarters of the chairs are occupied by
    customers and there are 206 legs altogether in the cafe.
    How many *chairs* does the cafe have?

5. **The Elephant Diet**
    One of the elephants in the zoo is on a special diet. Every day, the
    elephant eats the same amount of carrots that the rabbit eats in 1
    year (365 days).

    The rabbit eats the same amount of carrots every day.

    Together, in one day, the elephant and rabbit eat 122 kilograms of
    carrots.
    How many kilograms of carrots does the rabbit eat in one day?

These problems are adapted from UKMT (ukmt.org.uk) and SEAMC (seamc.asia) problems.