



**Age 14+ Level ★★**  
**Worksheet 3**

**1. Alien Currency**

On planet Zog, they use green and blue bank notes.  
Three green notes and eight blue notes are worth 46 zogs.  
Eight green notes and three blue notes are worth 31 zogs.  
How many zogs are two green notes and three blue notes worth?

**2. Fractions of Fractions**

Two thirds of five sixths of a number  $X$  is the same as three quarters of four fifths of a number  $Y$ .

What is the value of  $\frac{X}{Y}$  as a fraction in its lowest terms?

**3. Packing Boxes**

Harry, Christine and Betty are packing 36 boxes of chocolates.

- Harry and Christine would take 2 hours to pack the boxes
- Harry and Betty would take 3 hours
- Christine and Betty would take 4 hours

How many boxes does Christine pack in one hour?

**4. Monetary Difference**

Al, Bertie, Chris and Di have sums of money totalling £150.  
Al and Bertie have £55 between them and Al and Chris have £65 between them.  
What is the difference between the amounts that Al and Di have?

**5. Big Fish**

Granny caught a fish so big that she had to cut it into three pieces (head, body and tail) in order to weigh it.  
The tail weighed 9kg.  
The head weighed the same as the tail plus one third of the body.  
The body weighed as much as the head and tail together.  
How much did the whole fish weigh?

*These problems are adapted from UKMT ([ukmt.org.uk](http://ukmt.org.uk)) and WMC ([competition.ac](http://competition.ac)) problems.*