

ARITHMETIC (Q 1, PAPER 1)

2002

- 1 (a) Copper and zinc are mixed in the ratio 19 : 6.
The amount of copper used is 133 kg.
How many kilogrammes of zinc are used?
- (b) Four telephone calls cost €3.85, €7.45, €8.40 and €11.55.
- (i) John estimates the total cost of the four calls by ignoring the cent part in the cost of each call. Calculate the percentage error in his estimate.
- (ii) Anne estimates the total cost of the four calls by rounding the cost of each call to the nearest euro. Calculate the percentage error in her estimate.
- (c) A raffle to raise money for a charity is being held.
The first prize is €100, the second is €85, the third is €65 and the fourth is €50.
The cost of printing tickets is €42 for the first 500 tickets and €6 for each additional 100 tickets. The smallest number of tickets that can be printed is 500.
Tickets are being sold at €1.50 each.
- (i) What is the minimum possible cost of holding the raffle?
- (ii) If 500 tickets are printed, how many tickets must be sold in order to avoid a loss?
- (iii) If 1000 tickets are printed and 65% of the tickets are sold, how much money will be raised for the charity?

ANSWERS

- 1 (a) 42
- (b) (i) 7.2% (ii) 0.8%
- (c) (i) €342 (ii) 228 (iii) €603