Basic Skills Practice

Rounding, Estimating and Significant Figures

1   a)   Round 5743.3457 to the nearest hundred.

        b)   A rectangular field is 73.54m by 94.26m. Estimate its area.

        c)   Round 20913.523 to two significant figures.

Fractions

2   a) $\frac{5}{8} \times 120 =$

        b) $\frac{2}{5} \div \frac{3}{8} =$

Mixed Numbers

3   a) $27\frac{1}{6} - 18\frac{5}{8} =$

        b) $5\frac{10}{11} \times 5\frac{7}{9} =$

Multiplication

4   a) $82 \times 57 =$
        b) $8.4 \times 7.2 =$
        c) $(7.41 \times 10^8) \times (8.43 \times 10^5) =$

Division

5   a) $4572 \div 9 =$
        b) $6665348 \div 15 =$
        c) $\frac{35 \times 42 \times 24 \times 56}{25 \times 64 \times 32 \times 66} =$

Squaring and Cubing Numbers

6   a) $12^2 - 4^3 =$
        b) $5^3 + 8^2 =$

Ratio

7   a)   Mary, Mungo and Midge split some sweets in the ratio 11:3:6. Mungo got 45 sweets. How many did the others get?

        b)   Freda, Bill and Murray split 80 sweets in the proportion 5:2:8. How many more sweets did Murray get than Freda?

        c)   Rodney, Raquel and Del raised some money in the proportion of 2:5:8. If Raquel raised £7.20 more than Rodney, how much did the three of them raise altogether?

Direct Proportion

8 A is directly proportional to B.
 When A is 7, B is 13.
 a) Find a formula relating A to B
 b) Calculate B when A = 15.
 c) Calculate A when B = 39.

Volume

9 a) A box has the dimensions 8cm by 124cm by 76cm. Calculate the volume of the box.

 b) A sphere has a radius of 56cm. What is the volume of the sphere?

 c) A triangular prism has a cross sectional area of $35cm^2$ and a length of 45cm. What is the volume of the prism?