Exercise 1

1. Write the following numbers out fully in words :-
   (a) 2007     (b) 18 050     (c) 140 010     (d) 101 007.

2. Write the following numbers using digits :-
   (a) five hundred and forty.     (b) ten thousand and ninety.
   (c) fifty thousand and two.     (d) one hundred thousand and ten.
   (e) seven hundred and seven thousand and seventy.
   (f) one million, one hundred and one thousand.

3. Put the following numbers in order, smallest first :-
   399, 3011, 401, 35 002, 30 401, 4001, 40 900, 7001.

4. Write down the number that is :-
   (a) 50 after 960     (b) 500 after 7580     (c) 3500 before 9050
   (d) three thousand six hundred before five thousand.
   (e) half-way between :- (i) 190 and 230    (ii) 1500 and 1850.

5. Look at the following scales. What numbers are represented by the letters A, B, C, ...

   [Diagram of scales with numbers 30, 40, 90, 110, 2000, 6000, 7500, 10 000 labeled]

6. What is the average (mean) of :-
   (a) 120 and 160 ?     (b) 180 and 224 ?
   (c) 3000 and 4500 ?   (d) 7500 and 8150 ?

7. The millionaire’s charity ball was a great success.
   Mr. Rich donated one and a half million pounds to charity.
   Write this amount in full.
Exercise 2

Try to do as much of this exercise as you can mentally.

1. Write down the answers to :-
   (a) 27 + 34  
   (b) 76 + 37  
   (c) 136 + 85  
   (d) 147 + 135  
   (e) 351 + 279  
   (f) 2100 + 3700  
   (g) 4600 + 2700  
   (h) 6450 + 3350.

2. Write down the answers to :-
   (a) 58 - 37  
   (b) 96 - 39  
   (c) 170 - 49  
   (d) 185 - 118  
   (e) 270 - 195  
   (f) 865 - 495  
   (g) 3100 - 1200  
   (h) 9750 - 7450.

3. Find :-
   (a) 530 + 880  
   (b) 4320 - 620  
   (c) 5650 + 3700  
   (d) 9980 - 5320  
   (e) 5555 + 4445  
   (f) 9090 - 2100  
   (g) 2080 + 3040  
   (h) 9870 - 8990.

4. (a) An army plane takes off with 72 soldiers. Forty seven soldiers parachute from the plane. How many soldiers are left on the plane ?
   (b) The dentist charged Mr. Molar £245 for a crown and £76 for a filling. How much was Mr. Molar’s total bill ?
   (c) Janice earned £1850 per month and Joe earned £790. (i) How much did they earn altogether ? (ii) How much more did Janice earn than Joe ?

5. Miss Savey had £265 in her wallet. She spent £99 on a new jacket and £79 on a pair of shoes. She then took £120 from a cashline machine. How much money does Miss Savey have in her possession now ?

Exercise 3

Show all your working for this exercise.

1. Copy the following and find the answers :-
   (a) \[
   \begin{array}{c}
   468 \\
   + 222 \\
   \end{array}
   \]
   (b) \[
   \begin{array}{c}
   678 \\
   + 396 \\
   \end{array}
   \]
   (c) \[
   \begin{array}{c}
   499 \\
   - 368 \\
   \end{array}
   \]
   (d) \[
   \begin{array}{c}
   777 \\
   + 333 \\
   \end{array}
   \]
   (e) \[
   \begin{array}{c}
   904 \\
   - 717 \\
   \end{array}
   \]
   (f) \[
   \begin{array}{c}
   8008 \\
   + 1764 \\
   \end{array}
   \]
   (g) \[
   \begin{array}{c}
   2345 \\
   + 7656 \\
   \end{array}
   \]
   (h) \[
   \begin{array}{c}
   5004 \\
   - 4295 \\
   \end{array}
   \]
(i) $4870 + 888$
(j) $5432 + 3577$
(k) $7941 - 5974$
(l) $9009 - 178$

2. (a) Last season, the Tigers scored 4375 points and the Panthers scored 2680 points.
   (i) How many points were scored altogether?
   (ii) How many more points were scored by the Tigers than the Panthers?

(b) A secretary earned £7660 last year.
    This year she received a pay increase of £1360.
    What is her salary this year?

(c) Jay has £2450. He gives Paul £360, Beth £660 and Andy £150.
    Peter gives Jay £75.
    How much money does Jay have now?

Exercise 4

1. Write down the answers to the following:
   (a) $45 \times 10$
   (b) $22 \times 10$
   (c) $10 \times 76$
   (d) $10 \times 20$
   (e) $123 \times 10$
   (f) $802 \times 10$
   (g) $10 \times 1200$
   (h) $10 \times 1030$

2. Write down the answers to the following:
   (a) $41 \times 100$
   (b) $99 \times 100$
   (c) $100 \times 231$
   (d) $100 \times 100$
   (e) $501 \times 100$
   (f) $100 \times 300$
   (g) $100 \times 2020$
   (h) $5000 \times 100$

3. Write down the answers to these:
   (a) $230 \times 10$
   (b) $330 \times 100$
   (c) $404 \times 10$
   (d) $100 \times 660$
   (e) $10 \times 900$
   (f) $1000 \times 100$
   (g) $1010 \times 10$
   (h) $2000 \times 100$

4. A bottle holds 100 millilitres of medicine.
   How many millilitres are there in:
   (a) 4 bottles
   (b) 30 bottles?

5. There are 10 millimetres in 1 centimetre.
   How many millimetres are there in:
   (a) 5 cm
   (b) 40 cm
   (c) 101 cm
   (d) 1000 cm?
Exercise 5

1. Write down the answers to the following :-
   (a) \( 330 \div 10 \)  
   (b) \( 560 \div 10 \)  
   (c) \( 700 \div 10 \)  
   (d) \( 3000 \div 10 \)  
   (e) \( 8000 \div 10 \)  
   (f) \( 5500 \div 10 \)  
   (g) \( 10000 \div 10 \)  
   (h) \( 140500 \div 10 \)

2. Write down the answers to the following :-
   (a) \( 200 \div 100 \)  
   (b) \( 1600 \div 100 \)  
   (c) \( 8000 \div 100 \)  
   (d) \( 24000 \div 100 \)  
   (e) \( 10000 \div 100 \)  
   (f) \( 20100 \div 100 \)  
   (g) \( 300000 \div 100 \)  
   (h) \( 5000000 \div 100 \)

3. Write down the answers to these :-
   (a) \( 9000 \div 100 \)  
   (b) \( 2050 \div 10 \)  
   (c) \( 22000 \div 100 \)  
   (d) \( 1100 \div 10 \)  
   (e) \( 8700 \div 100 \)  
   (f) \( 10000 \div 100 \)  
   (g) \( 1000 \div 100 \)  
   (h) \( 100 \div 100 \)

4. There are 10 millimetres in 1 centimetre and 100 centimetres in 1 metre.
   How many metres are equivalent to :-
   (a) \( 500 \text{ cm} \)  
   (b) \( 80000 \text{ cm} \)  
   (c) \( 50000 \text{ mm} \)  
   (d) \( 100000 \text{ mm} \)

5. A bottle can hold 100 headache pills.
   How many similar bottles are needed to hold :-
   (a) \( 700 \text{ pills} \)  
   (b) \( 40000 \text{ pills} \)

Exercise 6

1. Copy the following and complete the calculations :-
   (a) \( \frac{27}{3} \times 3 \)  
   (b) \( \frac{34}{4} \times 4 \)  
   (c) \( \frac{71}{6} \times 6 \)  
   (d) \( \frac{55}{5} \times 5 \)  
   (e) \( \frac{132}{7} \times 7 \)  
   (f) \( \frac{308}{6} \times 6 \)  
   (g) \( \frac{367}{4} \times 4 \)  
   (h) \( \frac{238}{9} \times 9 \)

2. Rewrite each of these in the above form and complete the calculations :-
   (a) \( 35 \times 6 \)  
   (b) \( 93 \times 5 \)  
   (c) \( 8 \times 43 \)  
   (d) \( 78 \times 7 \)  
   (e) \( 9 \times 406 \)  
   (f) \( 8 \times 333 \)  
   (g) \( 9231 \times 9 \)  
   (h) \( 4 \times 4444 \)

3. Show all working :-
   (a) How many minutes are there in eight hours ?  
   (b) How many hours are in a week ?  
   (c) Find :-  
      (i) \( 3 \times 72 \times 4 \)  
      (ii) \( 5 \times 621 \times 7 \)
4. (a) Buzz has 9 packs of trading cards. Each pack contains 136 cards. How many cards does Buzz have?

(b) Sadie can write 368 words (in shorthand) in 4 minutes. At the same rate, how many words can she write in one minute?

Exercise 7

1. Copy the following and complete each calculation:
   (a) $7 \div 63$  (b) $5 \div 735$  (c) $8 \div 440$  (d) $9 \div 5571$

2. Set the following down in the same way as above and complete each calculation:
   (a) $64 \div 4$  (b) $378 \div 2$  (c) $824 \div 4$  (d) $364 \div 7$
   
   (e) $2664 \div 6$  (f) $2875 \div 5$  (g) $8204 \div 4$  (h) $7578 \div 9$

3. Show all your working in solving the following:
   (a) A box can hold 8 teddy bears. How many boxes are needed for 248 teddies?
   
   (b) A spoonful of medicine holds 5 millilitres. How many spoonfuls would you need for 275 millilitres?

   (c) Find the answer to:
   (i) $3836 \div 4 \div 7$
   (ii) $7 \times 235 \div 5$.

4. Find the remainder each time here:
   (a) $656 \div 8$  (b) $2208 \div 6$  (c) $9 \div 3141$  (d) $8815 \div 5$

5. A mini-bus can take 9 pupils at a time to the swimming pool. There are 120 pupils to go to the pool.
   (a) How many journeys will the bus need to make? (To the pool and back is counted as 1 journey).
   (b) How many pupils will be on the bus on the last journey?
Exercise 8

1. Try to do the following mentally :- (use the 2-step approach)
   (a) $32 \times 20$  (b) $52 \times 30$  (c) $30 \times 40$  (d) $123 \times 30$
   (e) $40 \times 25$  (f) $50 \times 304$  (g) $70 \times 80$  (h) $90 \times 321$

2. Calculate each of the following (not necessarily mentally) :-
   (a) $234 \times 30$  [Find $10 \times 234$ first = 2340 and then find $2340 \times 3$]
   (b) $137 \times 50$  (c) $705 \times 60$  (d) $453 \times 40$  (e) $876 \times 20$

3. Calculate each of the following :-
   (a) $167 \times 200$  [Find $167 \times 100$ first = 16 700 and then find $16 700 \times 2$]
   (b) $152 \times 400$  (c) $405 \times 500$  (d) $517 \times 600$  (e) $420 \times 500$
   (f) $879 \times 300$  (g) $987 \times 200$  (h) $222 \times 800$  (i) $510 \times 700$

Exercise 9

1. Round to the nearest 10 :-
   (a) 58  (b) 43  (c) 85  (d) 128
   (e) 362  (f) 489  (g) 3765  (h) 1996

2. Round to the nearest 100 :-
   (a) 471  (b) 849  (c) 1396  (d) 3445
   (e) 9819  (f) 6066  (g) 11 870  (h) 9951

3. A room has a perimeter of 7465 centimetres.
   Round this figure to the nearest :-
   (a) 10  (b) 100

4. Sanjit has £1996 in his bank.
   Round this figure to the nearest :-
   (a) £10  (b) £100.

5. A spaceship orbits a planet and travels 99 909 kilometres.
   Round this figure to the nearest :-
   (a) 10 km  (b) 100 km.
Exercise 10

1. Round each number to 1 figure accuracy, then give an estimate to :-
   (a) 39 + 23    (b) 47 + 44    (c) 197 + 38    (d) 123 + 139
   (e) 93 + 190   (f) 88 + 194   (g) 378 + 241   (h) 794 + 251

2. (a) Jack has 188 euros. Jill has 322 euros. Approximately, how many euros do they have in total ?
   (b) Calculate, approximately, the perimeter of a square with each side 198 centimetres.

3. Give an approximate answer to each of the following :-
   (a) 97 - 49    (b) 284 - 198   (c) 512 - 296   (d) 1111 - 790

4. Round each number to 1 figure accuracy, then give an estimate to :-
   (a) 29 + 31 + 38    (b) 199 + 304 + 299    (c) 29 + 793 + 90    (d) 819 + 143 + 189
   (e) 12 x 8        (f) 54 x 8        (g) 34 x 98       (h) 222 x 95

Exercise 11
You may use a calculator for this exercise.

1. Calculate :-
   (a) 364 + 179    (b) 4789 - 1908   (c) 6734 + 243    (d) 9578 - 833
   (e) 37 x 24      (f) 8234 ÷ 23     (g) 37 x 46 ÷ 23   (h) 158 x 288 ÷ 79

2. (a) A jet flies 187 kilometres of a one thousand kilometre flight. How far has the jet still to travel ?
   (b) Jack buys a car and pays £2760. He still has £1890 to pay. What is the cost of his car ?
   (c) A rectangular park of length 250 metres has a perimeter of 800 metres. What is the width of the park ?
   (d) Sam has £300. She buys three jackets at £45 each and a dress costing £94. How much money does she have left ?
Revision Exercise

1. Write out the number 10759 fully in words.

2. Write the following numbers using digits: -
   (a) twenty thousand and ten         (b) eighty one thousand and ninety.

3. Rearrange the following numbers in order, starting with the largest: -
   4070 4991 3765 3099 40003 4700

4. What is the reading on these thermometers: -
   (a) ![thermometer](a)                     (b) ![thermometer](b)

5. What is the average (mean) of: -
   (a) 1500 and 1800                     (b) 8700 and 9600

6. Try doing the following mentally: -
   (a) 78 + 86                           (b) 2500 - 1950
   (c) 3650 + 9350                       (d) 10000 - 2950
   (e) 42 × 10                           (f) 5400 ÷ 10
   (g) 100 × 330                         (h) 36000 ÷ 100
   (i) A train has 76 passengers. At the station fifty nine passengers get off and sixteen passengers get on the train. How many passengers are now on the train?

7. Show all working: -
   (a) 3474 + 188                       (b) 8765 - 5678
   (c) 3456 + 2199                      (d) 10000 - 5678
   (e) 44 × 5                           (f) 622 × 8
   (g) 324 ÷ 4                         (h) 19188 ÷ 9

8. Show all working: -
   (a) Jo buys a television for £469 and a DVD player for £176. What is Jo’s total bill?
   (b) Penny has £8078 in her bank. She takes out £1290 for a car deposit. How much is now in Penny’s bank account?

9. Round 4996 to the nearest: -
   (a) 10                               (b) 100

10. Find mentally an approximate answer to: -
    (a) 496 + 708                        (b) 199 × 11

11. Find mentally: -
    (a) 40 × 20                          (b) 600 × 30
    (c) 4000 ÷ 20