
Rounding off and Estimating

Exercise 1

Round off these numbers to the nearest 10.

- 1) 73 2) 87 3) 142 4) 251
 5) 175 6) 174 7) 352 8) 547
 9) 683 10) 756 11) 876 12) 947

- 13) 6482 (1000) 14) 97 (10)
 15) 3422 (100) 16) 1251 (100)
 17) 8742 (1000) 18) 5472 (1000)
 19) 186 (10) 20) 17,694 (1000)
 21) 351 (10) 22) 36,421 (1000)
 23) 5976 (100) 24) 4392 (1000)
 25) 399 (10) 26) 247 (10)
 27) 8427 (100) 28) 11,223 (10)
 29) 11, 223 (100) 30) 11,223 (1000)

Exercise 2

Round off each of these numbers in the way indicated in the brackets.

- 1) 27 (nearest10) 2) 4900 (1000)
 3) 614 (100) 4) 3100 (1000)
 5) 347 (100) 6) 172 (10)
 7) 475 (10) 8) 143 (10)
 9) 6741 (1000) 10) 851 (100)
 11) 5422 (1000) 12) 1370 (100)

- 31) The attendance at a football match was 23,251. Write down this value;
 a) correct to the nearest thousand
 b) correct to the nearest hundred
 c) correct to the nearest 10

Multiplying Numbers Ending in Zeros

Exercise 1

Write down the answers to these multiplications.

- 1) 8×10 2) 9×100
 3) 20×100 4) 61×1000
 5) 27×10 6) 340×100
 7) 86×1000 8) 9×10000
 9) 4314×10 10) 784×100
 11) 953×10 12) 864×1000

Exercise 2

Write down the answers to these

- 1) 50×6 2) 2×200
 3) 50×7 4) 40×80
 5) 90×20 6) 200×30
 7) 500×200 8) 600×70
 9) 600×200 10) 3000×30
 11) 7000×200 12) 600×7000
 13) 6000×2000 14) 7000×5000
 15) 6000×8000 16) $700,000 \times 200$

Recap Test 1 - Numbers

1) Write down these numbers in figures.

- a) One hundred and sixty seven.
- b) Sixteen thousand four hundred.
- c) One hundred and fifty six thousand, three hundred and forty three.
- d) Six million and six.

2) Write down these numbers in words.

- a) 68 b) 157 c) 7482 d) 12,421
- e) 256,421 f) 3,000,000
- g) 5,400,000 h) 16,254,000

3) Which number in the following pairs is the bigger?

- a) 250 ; 205 b) 100,000 ; 96,000
- c) 3,400 ; 5,000 d) 852,500 ; 654,329

4) In each of the following numbers, say what the value of the 5 is each time (i.e. units, tens, hundreds etc)

- a) 547 b) 3425 c) 27452
- d) 125,426 e) 5,126,424 f) 6,534,321

5) Write down the following numbers in order of size, smallest first.

- 9142 ; 572 ; 1432 ; 27 ; 81,562 ; 684 ; 500 ; 8 million ; 934,381

6) In the following additions show all your calculation

- a) $52 + 47$ b) $189 + 69$ c) $1254 + 956$
- d) $27 + 841 + 3142$
- e) $1426 + 2345 + 98 + 63$

7) In the following subtractions, show all your calculations.

- a) $37 - 14$ b) $83 - 69$ c) $284 - 39$
- d) $541 - 397$ e) $2000 - 1159$

8) Times tables - use your memory to write down the answers to the following

multiplications.

- a) 2×9 b) 4×6 c) 5×7
- d) 6×8 e) 7×8 f) 9×6
- g) 9×7 h) 9×9 i) 8×9

9) Write down the next 3 numbers in each of these patterns.

- a) 6, 12, 18, 24, 30...
- b) 40, 38, 36, 34, 32...
- c) 5, 7, 10, 14, 19...
- d) 81, 78, 73, 66, 57...

10) Showing all your calculations, do these multiplications.

- a) 27×2 b) 47×33 c) 324×36

11) Showing all your calculations, do these divisions.

- a) $437 \div 3$ b) $743 \div 7$ c) $564 \div 15$
- d) $3246 \div 43$

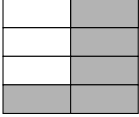
12) Round off each of the following numbers in the way indicated

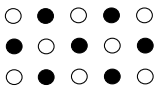
- a) 73 to the nearest 10
- b) 87 to the nearest 10
- c) 684 to the nearest 100
- d) 1482 to the nearest 100
- e) 12,423 to the nearest 100
- f) 647 to the nearest 10

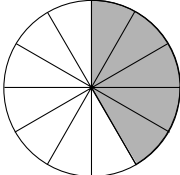
13) Write down the answers to these multiplications without doing any written calculations.

- a) 40×3 b) 50×30 c) 400×20
- d) 5000×6 e) 6000×70
- f) $50,000 \times 300$ g) $200,000 \times 6$
- h) $50,000 \times 3000$

Definition of a Fraction

- 1)  a) What fraction is shaded in?
b) What fraction is unshaded?

- 2)  a) What fraction is black?
b) What fraction is white?

- 3)  a) What fraction is shaded in?
b) What fraction is unshaded?

- 4) 25 students sit an examination.
17 pass and the remainder fail.

- a) What fraction of the students pass?
b) What fraction of the students fail?

- 5) Gary walks from his home to the centre of town, a distance of 7 miles. When he has walked 4 miles he stops for a rest.

- a) What fraction of the journey has he travelled when he stops?

- b) What fraction of the journey has he got left?

- 6) ABRACADABRA

- a) What fraction of this word is made up of A's?

- b) What fraction of this word is made up of B's?

- c) What fraction of this word is made up of C's?

- d) What fraction of this word is made up of D's?

- e) What fraction of this word is made up of R's?

- 7) A bunch of flowers is made up of 9 yellow roses, 5 red roses and 3 white roses

- a) What fraction of the bunch are yellow roses?

- b) What fraction of the bunch are red roses?

- c) What fraction of the bunch are white roses?

Calculating a Part of Something 1

Exercise 1

- 1) Is $\frac{1}{16}$ bigger than $\frac{1}{8}$?
- 2) Is $\frac{1}{8}$ smaller than $\frac{1}{4}$?
- 3) Which is the smaller, $\frac{1}{4}$ or $\frac{1}{8}$?

In questions 4 to 6 use the diagrams above to help you.

- 4) How many $\frac{1}{4}$'s make $\frac{1}{2}$?
- 5) How many $\frac{1}{8}$'s make $\frac{1}{4}$?
- 6) How many $\frac{1}{8}$'s make $\frac{1}{2}$?
- 7) Write down these fractions in order of size, smallest to largest.

$$\frac{1}{3}, \frac{1}{8}, \frac{1}{4}, \frac{1}{2}, \frac{1}{5}, \frac{1}{7}, \frac{1}{12}.$$

Exercise 2

Work out these.

- 1) $\frac{1}{2}$ of 20
- 2) $\frac{1}{2}$ of 10
- 3) $\frac{1}{3}$ of 9
- 4) $\frac{1}{3}$ of 21
- 5) $\frac{1}{6}$ of 30
- 6) $\frac{1}{6}$ of 36
- 7) $\frac{1}{4}$ of 20
- 8) $\frac{1}{4}$ of 40
- 9) $\frac{1}{5}$ of 15
- 10) $\frac{1}{5}$ of 25
- 11) $\frac{1}{10}$ of 40
- 12) $\frac{1}{10}$ of 80
- 13) $\frac{1}{2}$ of 16 apples
- 14) $\frac{1}{3}$ of 30 cm.
- 15) $\frac{1}{4}$ of 24 hours
- 16) $\frac{1}{5}$ of 30 cakes
- 17) $\frac{1}{10}$ of 20 days

- 18) $\frac{1}{3}$ of 18 loaves
- 19) $\frac{1}{4}$ of 40 mm.
- 20) $\frac{1}{5}$ of 25 oranges

Exercise 3

Add these together

- 1) $\frac{3}{5} + \frac{1}{5}$
- 2) $\frac{4}{10} + \frac{3}{10}$
- 3) $\frac{2}{7} + \frac{3}{7}$
- 4) $\frac{3}{8} + \frac{2}{8}$
- 5) $\frac{1}{5} + \frac{2}{5}$
- 6) $\frac{2}{6} + \frac{3}{6}$
- 7) $\frac{2}{9} + \frac{3}{9}$
- 8) $\frac{3}{16} + \frac{8}{16}$
- 9) $\frac{3}{20} + \frac{6}{20}$
- 10) $\frac{5}{12} + \frac{2}{12}$
- 11) $\frac{3}{18} + \frac{8}{18}$
- 12) $\frac{9}{20} + \frac{2}{20}$

Exercise 4

Calculate these

- 1) $\frac{2}{5}$ of 20
- 2) $\frac{3}{5}$ of 25
- 3) $\frac{3}{8}$ of 24
- 4) $\frac{3}{7}$ of 21
- 5) $\frac{5}{6}$ of 18
- 6) $\frac{3}{4}$ of 20
- 7) $\frac{5}{7}$ of 28
- 8) $\frac{7}{10}$ of 30
- 9) $\frac{5}{8}$ of 32
- 10) $\frac{3}{10}$ of 40
- 11) $\frac{9}{10}$ of 50
- 12) $\frac{3}{12}$ of 60
- 13) $\frac{3}{4}$ of 40 apples
- 14) $\frac{3}{5}$ of 35 cakes
- 15) $\frac{2}{3}$ of 21 days
- 16) $\frac{5}{8}$ of 40 mm.
- 17) $\frac{4}{5}$ of £60
- 18) $\frac{7}{8}$ of 64 metres

Equivalent Fractions

Put these fractions into their lowest terms by dividing the numerator and the denominator by the same number (cancelling down).

- | | | |
|---------------------|---------------------|--------------------|
| 1) $\frac{5}{20}$ | 2) $\frac{4}{20}$ | 3) $\frac{4}{16}$ |
| 4) $\frac{3}{15}$ | 5) $\frac{2}{6}$ | 6) $\frac{4}{12}$ |
| 7) $\frac{6}{15}$ | 8) $\frac{9}{12}$ | 9) $\frac{15}{20}$ |
| 10) $\frac{4}{10}$ | 11) $\frac{6}{14}$ | 12) $\frac{8}{12}$ |
| 13) $\frac{12}{18}$ | 14) $\frac{10}{15}$ | 15) $\frac{9}{15}$ |

16) Cancel down each of these fractions and say which have the value of $\frac{2}{3}$.

- $\frac{12}{15}, \frac{8}{10}, \frac{7}{14}, \frac{6}{9}, \frac{6}{12}, \frac{8}{12}, \frac{10}{15}, \frac{14}{30}, \frac{12}{18}, \frac{12}{20}, \frac{4}{6}, \frac{5}{15},$
 $\frac{16}{20}, \frac{18}{27}, \frac{14}{21}$

17) Cancel down each of these fractions and list them in order of size, smallest first

- $\frac{12}{30}, \frac{12}{15}, \frac{5}{25}, \frac{12}{20}$
-
-

Mixed Numbers

Exercise 1

Change these top heavy fractions into mixed numbers.

- | | | | |
|-------------------|---------------------|--------------------|---------------------|
| 1) $\frac{12}{5}$ | 2) $\frac{7}{2}$ | 3) $\frac{10}{3}$ | 4) $\frac{11}{4}$ |
| 5) $\frac{15}{4}$ | 6) $\frac{17}{3}$ | 7) $\frac{21}{5}$ | 8) $\frac{27}{8}$ |
| 9) $\frac{31}{9}$ | 10) $\frac{47}{10}$ | 11) $\frac{41}{7}$ | 12) $\frac{33}{13}$ |

Exercise 2

Change these mixed numbers into improper fractions

- | | | |
|--------------------|--------------------|---------------------|
| 1) $1\frac{1}{2}$ | 2) $2\frac{1}{4}$ | 3) $3\frac{3}{4}$ |
| 4) $2\frac{2}{3}$ | 5) $2\frac{1}{5}$ | 6) $3\frac{1}{7}$ |
| 7) $2\frac{3}{4}$ | 8) $3\frac{1}{2}$ | 9) $2\frac{3}{5}$ |
| 10) $2\frac{3}{8}$ | 11) $3\frac{5}{7}$ | 12) $3\frac{3}{10}$ |
-
-

Adding Fractions

- | | | |
|---|-----------------------------------|-----------------------------------|
| 1) $\frac{1}{4} + \frac{1}{6} = \frac{3}{12} + \frac{2}{12} = \frac{5}{12}$ | 10) $\frac{3}{10} + \frac{2}{5}$ | 11) $\frac{2}{20} + \frac{3}{10}$ |
| 2) $\frac{2}{3} + \frac{1}{6}$ (LCM is 6) | 12) $\frac{5}{8} + \frac{1}{6}$ | 13) $\frac{3}{10} + \frac{1}{6}$ |
| 3) $\frac{3}{4} + \frac{1}{12}$ (LCM is 12) | 14) $\frac{7}{12} + \frac{3}{8}$ | 15) $\frac{4}{9} + \frac{5}{12}$ |
| 4) $\frac{1}{6} + \frac{1}{8}$ (LCM is 24) | 16) $\frac{4}{5} + \frac{1}{20}$ | 17) $\frac{3}{7} + \frac{5}{21}$ |
| 5) $\frac{3}{10} + \frac{2}{15}$ (LCM is 30) | 18) $\frac{3}{10} + \frac{5}{25}$ | 19) $\frac{5}{8} + \frac{7}{20}$ |
| 6) $\frac{1}{3} + \frac{1}{5}$ | 20) $\frac{3}{8} + \frac{5}{12}$ | 21) $\frac{5}{16} + \frac{5}{8}$ |
| 7) $\frac{2}{7} + \frac{3}{14}$ | | |
| 8) $\frac{3}{5} + \frac{3}{10}$ | | |
| 9) $\frac{2}{3} + \frac{1}{4}$ | | |

Mixed Number Answers

Exercise 1

- | | |
|-----------------------------------|------------------------------------|
| 1) $\frac{3}{4} + \frac{5}{8}$ | 2) $\frac{7}{10} + \frac{9}{15}$ |
| 3) $\frac{8}{9} + \frac{7}{12}$ | 4) $\frac{7}{9} + \frac{5}{6}$ |
| 5) $\frac{3}{4} + \frac{11}{12}$ | 6) $\frac{5}{8} + \frac{11}{20}$ |
| 7) $\frac{7}{8} + \frac{7}{10}$ | 8) $\frac{4}{5} + \frac{5}{8}$ |
| 9) $\frac{7}{11} + \frac{23}{33}$ | 10) $\frac{7}{12} + \frac{13}{18}$ |

Exercise 2

- | | |
|------------------------------------|------------------------------------|
| 1) $1\frac{1}{4} + 2\frac{1}{2}$ | 2) $3\frac{2}{5} + 1\frac{1}{10}$ |
| 3) $2\frac{3}{8} + 1\frac{1}{4}$ | 4) $5\frac{1}{2} + 3\frac{3}{8}$ |
| 5) $2\frac{3}{10} + 1\frac{4}{5}$ | 6) $5\frac{1}{4} + 6\frac{1}{5}$ |
| 7) $5\frac{2}{3} + 6\frac{1}{4}$ | 8) $4\frac{1}{3} + 3\frac{1}{6}$ |
| 9) $5\frac{1}{10} + \frac{3}{5}$ | 10) $2\frac{5}{8} + 3\frac{3}{4}$ |
| 11) $6\frac{3}{4} + 5\frac{5}{8}$ | 12) $4\frac{1}{16} + 3\frac{3}{4}$ |
| 13) $3\frac{2}{5} + 5\frac{9}{10}$ | 14) $2\frac{7}{8} + 3\frac{1}{4}$ |

Exercise 3

- | | |
|---------------------------------|----------------------------------|
| 1) $\frac{5}{8} - \frac{1}{4}$ | 2) $\frac{9}{10} - \frac{3}{5}$ |
| 3) $\frac{7}{9} - \frac{2}{3}$ | 4) $1\frac{3}{4} - \frac{2}{3}$ |
| 5) $2\frac{7}{8} - \frac{3}{4}$ | 6) $3\frac{2}{3} - 2\frac{1}{5}$ |

7) $4\frac{3}{4} - 2\frac{2}{5}$

8) $5\frac{7}{8} - 2\frac{3}{16}$

9) $4\frac{9}{20} - 2\frac{1}{4}$

10) $5\frac{13}{15} - 3\frac{2}{3}$

11) $4\frac{11}{15} - 1\frac{7}{20}$

12) $6\frac{5}{6} - 4\frac{1}{4}$

Exercise 4

1) $4\frac{1}{8} - \frac{3}{4}$

2) $2\frac{1}{2} - \frac{11}{16}$

3) $3\frac{1}{4} - \frac{3}{5}$

4) $4\frac{1}{8} - 2\frac{3}{4}$

5) $5\frac{1}{10} - 2\frac{3}{5}$

6) $6\frac{1}{7} - 4\frac{2}{3}$

7) $3\frac{3}{4} - 2\frac{4}{5}$

8) $4\frac{1}{8} - 1\frac{2}{3}$

9) $6\frac{1}{4} - 3\frac{5}{6}$

10) $7\frac{1}{7} - 3\frac{1}{3}$

Exercise 5**Mixed Exercise**

1) $5\frac{3}{4} - \frac{4}{5}$

2) $3\frac{14}{15} - 2\frac{2}{3}$

3) $3\frac{1}{2} - 1\frac{5}{6}$

4) $4\frac{1}{4} - 2\frac{3}{5}$

5) $5\frac{1}{8} - 2\frac{1}{3}$

6) $4\frac{2}{3} - 2\frac{3}{5}$

7) $1\frac{1}{8} - \frac{7}{16}$

8) $6\frac{9}{10} - 4\frac{3}{5}$

9) $\frac{8}{9} - \frac{1}{3}$

10) $5\frac{7}{15} - 2\frac{3}{10}$

11) $4\frac{3}{7} - 1\frac{2}{3}$

12) $4\frac{9}{10} - 2\frac{7}{20}$

13) $6\frac{2}{7} - 3\frac{2}{3}$

14) $5\frac{5}{16} - 2\frac{1}{4}$

15) $6\frac{3}{10} - 1\frac{4}{5}$

16) $8\frac{7}{8} - 2\frac{1}{5}$

Multiplication of Fractions

Exercise 1

- 1) $\frac{1}{2} \times 9$ 2) $\frac{3}{8} \times 4$ 3) $\frac{3}{4} \times 7$
 4) $\frac{5}{8} \times 4$ 5) $1\frac{3}{8} \times 2$ 6) $2\frac{1}{7} \times 7$
 7) $3\frac{1}{2} \times 3$ 8) $5\frac{3}{8} \times 6$ 9) $4\frac{7}{8} \times 5$
 10) $6\frac{3}{10} \times 5$ 11) $4\frac{9}{10} \times 6$ 12) $4\frac{1}{8} \times 6$
 13) $5\frac{3}{8} \times 7$ 14) $4\frac{3}{5} \times 7$ 15) $2\frac{2}{3} \times 12$

Exercise 2

- 1) $\frac{3}{4} \times \frac{3}{4}$ 2) $\frac{5}{8} \times \frac{1}{2}$ 3) $\frac{4}{9} \times \frac{2}{3}$
 4) $\frac{3}{10} \times \frac{2}{5}$ 5) $\frac{1}{4} \times \frac{5}{8}$ 6) $\frac{3}{5} \times \frac{7}{8}$
 7) $\frac{4}{5} \times \frac{2}{3}$ 8) $\frac{6}{7} \times \frac{2}{3}$ 9) $\frac{7}{10} \times \frac{2}{5}$
 10) $\frac{3}{4} \times \frac{7}{11}$ 11) $\frac{5}{9} \times \frac{3}{4}$ 12) $\frac{11}{16} \times \frac{2}{3}$
 13) $\frac{3}{5} \times \frac{3}{4}$ 14) $\frac{6}{7} \times \frac{1}{3}$ 15) $\frac{5}{9} \times \frac{3}{5}$
 16) $\frac{3}{5} \times \frac{2}{7}$ 17) $\frac{5}{7} \times \frac{1}{6}$ 18) $\frac{7}{12} \times \frac{5}{8}$

Exercise 3

- 1) $\frac{2}{5} \times 1\frac{3}{4}$ 2) $2\frac{1}{3} \times \frac{3}{5}$ 3) $\frac{5}{8} \times 2\frac{1}{2}$
 4) $\frac{3}{8} \times 1\frac{3}{10}$ 5) $3\frac{1}{2} \times \frac{5}{6}$ 6) $1\frac{1}{2} \times \frac{3}{10}$
 7) $\frac{4}{5} \times 1\frac{3}{5}$ 8) $\frac{2}{3} \times 2\frac{1}{5}$ 9) $3\frac{1}{2} \times \frac{3}{5}$

- 10) $4\frac{1}{2} \times \frac{3}{10}$ 11) $1\frac{3}{5} \times \frac{5}{8}$ 12) $\frac{7}{8} \times 3\frac{1}{2}$

Exercise 4

- 1) $1\frac{1}{2} \times 2\frac{1}{2}$ 2) $1\frac{1}{2} \times 2\frac{2}{3}$ 3) $1\frac{3}{4} \times 1\frac{3}{4}$
 4) $2\frac{1}{4} \times 3\frac{1}{2}$ 5) $2\frac{1}{2} \times 1\frac{3}{8}$ 6) $2\frac{1}{8} \times 1\frac{1}{5}$
 7) $2\frac{1}{2} \times 1\frac{1}{10}$ 8) $2\frac{1}{4} \times 1\frac{1}{2}$ 9) $3\frac{1}{2} \times 1\frac{1}{4}$
 10) $2\frac{3}{10} \times 1\frac{1}{4}$ 11) $4\frac{1}{2} \times 3\frac{1}{4}$ 12) $2\frac{1}{10} \times 3\frac{3}{10}$

Exercise 5

- 1) $1\frac{1}{2} \times 4$ 2) $3\frac{1}{2} \times 2$ 3) $3 \times 1\frac{1}{4}$
 4) $5 \times 1\frac{1}{10}$ 5) $3 \times 1\frac{2}{3}$ 6) $2\frac{1}{2} \times 4$
 7) $2\frac{1}{4} \times 3$ 8) $3\frac{1}{2} \times 4$ 9) $2\frac{1}{5} \times 4$
 10) $3 \times 3\frac{1}{5}$ 11) $5 \times 2\frac{3}{4}$ 12) $6 \times 3\frac{2}{5}$

Exercise 6

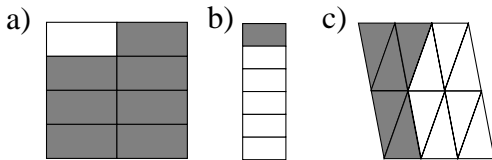
- 1) $1\frac{1}{2} \times 100$ 2) $3\frac{1}{4} \times 20$
 3) $2\frac{3}{10} \times 15$ 4) $5\frac{7}{20} \times 6$
 5) $4\frac{5}{8} \times 20$ 6) $3\frac{4}{5} \times 100$
 7) $3\frac{7}{8} \times 12$ 8) $2\frac{5}{8} \times 20$
 9) $4\frac{3}{5} \times 16$ 10) $5\frac{7}{12} \times 10$

Dividing by a Fraction

- 1) $6 \div \frac{1}{2}$ 2) $7 \div \frac{1}{3}$ 13) $5\frac{1}{4} \div 2$ 14) $3\frac{1}{2} \div 4$
 3) $1\frac{1}{2} \div \frac{1}{4}$ 4) $2\frac{1}{2} \div \frac{1}{2}$ 15) $8\frac{1}{2} \div \frac{1}{3}$ 16) $3\frac{2}{5} \div \frac{2}{5}$
 5) $4\frac{1}{2} \div \frac{1}{4}$ 6) $2\frac{1}{2} \div \frac{2}{5}$ 17) $4\frac{2}{3} \div 4$ 18) $2\frac{1}{4} \div 1\frac{1}{3}$
 7) $3\frac{1}{4} \div 4$ 8) $5 \div 1\frac{1}{2}$ 19) $3\frac{1}{2} \div 2\frac{1}{8}$ 20) $\frac{7}{9} \div \frac{3}{4}$
 9) $2\frac{1}{2} \div 3$ 10) $3\frac{1}{4} \div 1\frac{7}{8}$ 21) $\frac{5}{8} \div 1\frac{1}{4}$ 22) $1\frac{5}{8} \div 2\frac{1}{4}$
 11) $4 \div 2\frac{1}{2}$ 12) $3 \div 2\frac{1}{2}$

Recap Test 2 - Fractions

1) In these diagrams, say what fraction has been shaded in.



2) In an evening class, there are 12 male students and 13 female students. What fraction of the class are male?

3) Write down these fractions in order of size, smallest first.

$$\frac{1}{2}, \frac{1}{7}, \frac{1}{4}, \frac{1}{6}, \frac{1}{12}, \frac{1}{3}, \frac{1}{5}, \frac{1}{9}$$

4) Calculate

a) $\frac{1}{4}$ of 40 b) $\frac{1}{10}$ of 70 c) $\frac{1}{6}$ of 36

d) $\frac{1}{9}$ of 54 e) $\frac{3}{4}$ of 24 f) $\frac{5}{7}$ of 42

g) $\frac{3}{5}$ of 40 h) $\frac{7}{10}$ of 70 i) $\frac{6}{7}$ of 42

5) Calculate

a) $\frac{5}{7} + \frac{1}{7}$ b) $\frac{3}{11} + \frac{4}{11}$ c) $\frac{3}{13} + \frac{7}{13}$

6) Put these fractions into their lowest terms

a) $\frac{3}{9}$ b) $\frac{4}{12}$ c) $\frac{6}{18}$ d) $\frac{9}{12}$

7) Change into mixed numbers

a) $\frac{7}{4}$ b) $\frac{9}{5}$ c) $\frac{13}{6}$ d) $\frac{25}{4}$

8) Change into improper fractions

a) $1\frac{1}{2}$ b) $3\frac{3}{4}$ c) $5\frac{1}{4}$ d) $6\frac{3}{5}$

9) What is the L.C.M. (lowest common

multiple) of each of the following pairs of numbers?

a) 4 and 8 b) 8 and 12 c) 6 and 9

10) Calculate

a) $\frac{1}{7} + \frac{1}{21}$ b) $\frac{3}{5} + \frac{3}{10}$ c) $\frac{1}{6} + \frac{1}{12}$

11) Calculate

a) $\frac{1}{2} + \frac{3}{4}$ b) $\frac{7}{8} + \frac{3}{4}$ c) $\frac{4}{5} + \frac{3}{8}$

d) $1\frac{1}{2} + 2\frac{1}{4}$ e) $3\frac{1}{2} + 7\frac{1}{8}$ f) $2\frac{5}{6} + 3\frac{2}{3}$

12) Calculate

a) $\frac{3}{4} - \frac{1}{2}$ b) $\frac{9}{10} - \frac{1}{5}$ c) $\frac{3}{8} - \frac{1}{4}$

d) $2\frac{1}{4} - \frac{1}{2}$ e) $3\frac{3}{8} - \frac{1}{4}$ f) $4\frac{5}{8} - 1\frac{1}{4}$

g) $5\frac{3}{10} - 2\frac{2}{5}$ h) $6\frac{7}{8} - 1\frac{2}{5}$ i) $7\frac{3}{8} - 4\frac{3}{4}$

13) Calculate

a) $\frac{1}{2} \times 7$ b) $\frac{3}{4} \times 10$ c) $4\frac{1}{3} \times 10$

d) $\frac{3}{4} \times 1\frac{1}{2}$ e) $3\frac{1}{2} \times \frac{2}{5}$ f) $1\frac{1}{2} \times 2\frac{1}{2}$

g) $5\frac{1}{7} \times 3\frac{3}{5}$ h) $6\frac{1}{4} \times 2\frac{3}{8}$ i) $5\frac{1}{4} \times 7$

j) $3\frac{1}{2} \times 10$ k) $3\frac{1}{4} \times 100$ l) $6\frac{3}{4} \times 1000$

14) Calculate

a) $6\frac{1}{2} \div \frac{1}{4}$ b) $6\frac{1}{2} \div 4$ c) $\frac{5}{8} \div 2\frac{1}{2}$

15) By cancelling down, change these ratios into their lowest terms.

a) 8:4 b) 9:3 c) 12:8 d) 4:16

16) a) Divide £30 between two people in the ratio 3:2

b) Divide £16.20 between two people in the ratio 7:3.

Decimal Fractions (Decimals)

Exercise 1

Write down each of the following fractions and mixed numbers as decimal numbers.

- 1) $\frac{9}{10}$ 2) $\frac{9}{100}$ 3) $\frac{19}{100}$ 4) $\frac{39}{100}$
 5) $\frac{77}{100}$ 6) $3\frac{3}{10}$ 7) $6\frac{7}{10}$ 8) $24\frac{9}{100}$
 9) $28\frac{16}{100}$ 10) $37\frac{53}{100}$ 11) $15\frac{61}{100}$ 12) $76\frac{28}{100}$

Exercise 2

Change these fractions and mixed numbers into decimals.

- 1) $\frac{7}{1000}$ 2) $\frac{14}{1000}$ 3) $\frac{232}{1000}$ 4) $5\frac{6}{1000}$
 5) $18\frac{9}{1000}$ 6) $32\frac{27}{1000}$ 7) $56\frac{348}{1000}$
 8) $126\frac{127}{1000}$ 9) $643\frac{80}{1000}$ 10) $54\frac{640}{1000}$

Adding and Subtracting Decimals

Exercise 1

- 1) $2.38 + 1.64$ 2) $15.31 + 8.2$
 3) $15.81 + 6.315$ 4) $14.8 + 3.664$
 5) $127.31 + 8.621$ 6) $29.14 + 117.6$
 7) $17.315 + 2.14$ 8) $18.362 + 6.142$
 9) $8.326 + 147.6$ 10) $83 + 6.102$
 11) $27.36 + 187$
 12) $125 + 26.41 + 37.314$
 13) $128.6 + 37.31 + 19$

14) $37.145 + 26.1 + 73$

Exercise 2

- 1) $7.6 - 4.5$ 2) $12.7 - 9.3$
 3) $38.7 - 16.9$ 4) $24.8 - 2.76$
 5) $154.3 - 18.6$ 6) $20 - 8.6$
 7) $19.41 - 3.7$ 8) $26.41 - 3.52$
 9) $56.4 - 17.312$ 10) $127.6 - 114$
 11) $37 - 6.415$ 12) $27.14 - 16.312$
 13) $38.41 - 17.3$ 14) $97 - 63.81$

Multiplying Decimals

Exercise 1

- 1) 2.4×7 2) 5.4×9 3) 6.13×5
 4) 4.312×6 5) 3.4×5 6) 5.4×7
 7) 4.31×4 8) 18.6×9 9) 37.4×8
 10) 3.87×5 11) 15.3×7 12) 23.9×3

11) 12.6×0.04 12) 37.3×0.15

13) 84.3×0.28 14) 77.6×5.7

15) 0.45×0.63 16) 0.4×0.316

17) 0.45×0.814 18) 7.3×0.044

Exercise 2

- 1) 4.2×5.3 2) 9.8×2.5
 3) 8.6×4.1 4) 9.21×0.7
 5) 6.83×0.9 6) 14.1×0.6
 7) 24.1×3.2 8) 5.83×7.2
 9) 44.3×8.4 10) 7.8×0.05

Exercise 3

- 1) 0.03×0.7 2) 0.41×0.3
 3) 0.861×0.9 4) 0.14×0.32
 5) 0.62×0.48 6) 0.531×0.04
 7) 0.61×0.82 8) 0.9×0.681
 9) 0.013×0.045 10) 0.021×0.0031
 11) 3.4×0.014 12) 8.6×0.003
 13) 14×0.006 14) 18.6×0.0014

Fractions, Decimals and Percentages

Change each of the following

- | | |
|---|--|
| <p>1) $\frac{2}{5}$ into a decimal</p> <p>2) 0.31 into a percentage</p> <p>3) 70% into a fraction</p> <p>4) 90% into a fraction</p> <p>5) 95% into a fraction</p> <p>6) $\frac{7}{8}$ into a percentage</p> <p>7) 25% into a fraction</p> <p>8) 0.85 into a percentage</p> <p>9) 0.725 into a percentage</p> <p>10) $\frac{3}{10}$ into a percentage</p> | <p>11) $\frac{3}{4}$ into a decimal</p> <p>12) 62% into a fraction</p> <p>13) 0.45 into a percentage</p> <p>14) 45% into a fraction</p> <p>15) 0.83 into a fraction</p> <p>16) $\frac{4}{5}$ into a percentage</p> <p>17) 0.35 into a fraction</p> <p>18) $\frac{7}{10}$ into a percentage</p> <p>19) 0.82 into a fraction</p> <p>20) 0.875 into a percentage</p> |
|---|--|

Rounding off Decimal Numbers

Exercise 1

Round off each of the following to the nearest whole number.

- | | | |
|----------|---------|----------|
| 1) 6.4 | 2) 7.8 | 3) 9.3 |
| 4) 10.7 | 5) 3.4 | 6) 19.2 |
| 7) 21.7 | 8) 16.2 | 9) 12.5 |
| 10) 37.9 | 11) 4.3 | 12) 19.7 |

Exercise 2

Round off each of the following to the nearest whole number.

- | | | |
|---------|----------|----------|
| 1) 8.33 | 2) 9.42 | 3) 12.74 |
| 4) 8.68 | 5) 13.55 | 6) 23.48 |

- | | | |
|-----------|-----------|-----------|
| 7) 37.81 | 8) 51.94 | 9) 59.94 |
| 10) 87.63 | 11) 4.98 | 12) 6.43 |
| 13) 8.55 | 14) 12.42 | 15) 19.99 |

Exercise 3

Round off each of the following to the nearest whole number.

- | | | |
|-----------|-------------|-------------|
| 1) 4.82 | 2) 9.614 | 3) 27.61 |
| 4) 6.487 | 5) 137.3 | 6) 16.4 |
| 7) 12.83 | 8) 9.63 | 9) 82.91 |
| 10) 132.4 | 11) 12.4812 | 12) 36.1521 |
| 13) 19.4 | 14) 17.42 | 15) 47.67 |