UNIT 17 *Arithmetic: Decimals,*   **Extra Exercises 17.1**
Fractions and Percentages

1. Write these decimals as fractions in their simplest form:

    (a) 0.6   (b) 0.28   (c) 0.36

    (d) 0.011   (e) 0.004   (f) 0.009

    (g) 0.72   (h) 0.75   (i) 0.62

    (j) 0.04   (k) 0.14   (l) 0.082

2. Calculate the answers to these problems, giving your answers as decimals *and* fractions:

    (a) $0.7 + 0.02$ (b) $0.9 - 0.5$ (c) $0.14 + 0.69$

    (d) $0.72 - 0.41$ (e) $0.4 + 0.02$ (f) $0.5 - 0.12$

3. Write each list of numbers in *increasing* order:

    (a) 0.16, 0.1, 0.6, 0.61, 0.106, 0.601

    (b) 0.7, 0.71, 0.17, 0.107, 0.701

    (c) 0.32, 0.23, 0.203, 0.302, 0.2

    (d) 0.15, 0.1, 0.5, 0.501, 0.105, 0.2

    (e) 0.4, 0.401, 0.104, 0.34, 0.43

UNIT 17 *Arithmetic: Decimals,*   Extra Exercises 17.2
Fractions and Percentages

1. Write these fractions as decimals:

   (a) $\dfrac{8}{10}$ (b) $\dfrac{22}{100}$ (c) $\dfrac{4}{1000}$

   (d) $\dfrac{16}{1000}$ (e) $\dfrac{3}{100}$ (f) $\dfrac{142}{1000}$

2. Determine the missing numbers *and* then write each fraction as a decimal:

   (a) $\dfrac{2}{5} = \dfrac{?}{10}$ (b) $\dfrac{3}{25} = \dfrac{?}{100}$ (c) $\dfrac{6}{50} = \dfrac{?}{100}$

   (d) $\dfrac{7}{250} = \dfrac{?}{1000}$ (e) $\dfrac{3}{8} = \dfrac{?}{1000}$ (f) $\dfrac{17}{200} = \dfrac{?}{1000}$

3. Write these fractions as decimals:

   (a) $\dfrac{3}{5}$ (b) $\dfrac{9}{50}$ (c) $\dfrac{11}{20}$

   (d) $\dfrac{6}{25}$ (e) $\dfrac{19}{20}$ (f) $\dfrac{3}{40}$
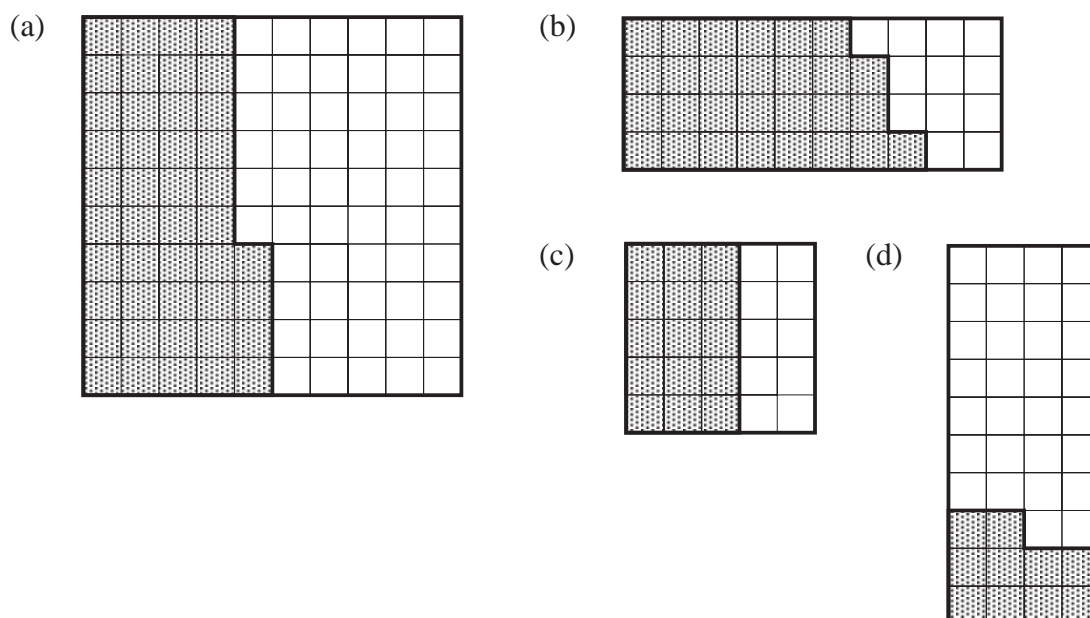
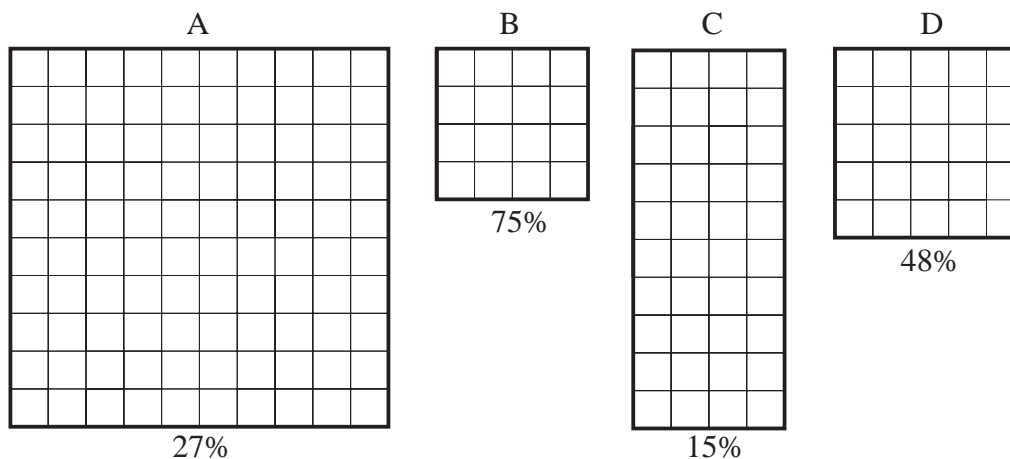   (g) $\dfrac{11}{125}$ (h) $\dfrac{16}{25}$ (i) $\dfrac{51}{250}$

UNIT 17 *Arithmetic: Decimals,*   **Extra Exercises 17.3**
Fractions and Percentages

1.   What percentage of each of the following shapes is shaded:

(a)   (b)

(c)   (d)

2.   (a)   Copy each shape below and shade the stated percentage:

     A   B   C   D

          27%   15%

          B 75%   D 48%

(b)   For each shape, state what percentage is *not* shaded.

3.   Calculate:

(a)   50% of £98   (b)   30% of 60 m

(c)   15% of £200   (d)   5% of £5

(e)   16% of £20   (f)   30% of 40 kg

UNIT 17 *Arithmetic: Decimals,*   **Extra Exercises 17.4**
Fractions and Percentages

1. Write these percentages as fractions in their simplest form:

    (a) 22%   (b) 44%   (c) 58%

    (d) 7%   (e) 8%   (f) 60%

    (g) 25%   (h) 90%   (i) 80%

2. Write these fractions as percentages:

    (a) $\dfrac{11}{100}$ (b) $\dfrac{14}{20}$ (c) $\dfrac{6}{25}$

    (d) $\dfrac{7}{50}$ (e) $\dfrac{14}{25}$ (f) $\dfrac{17}{20}$

3. Each of the 25 children in a class was asked to state their favourite subject. The results are listed below:

Maths	8
English	2
P.E.	10
Science	1
Art	4

    Write down the percentage of the children in the class that chose each subject.

4. There are 20 cars in a car park; 7 of these cars are red. What percentage of the cars in the car park is red?

5. $\dfrac{17}{20}$ of the children in a class can ride a bike. What percentage of the children in the class *cannot* ride a bike?

Extra Exercises 17.1   Answers

1. (a) $\dfrac{3}{5}$ (b) $\dfrac{7}{25}$ (c) $\dfrac{9}{25}$

   (d) $\dfrac{11}{1000}$ (e) $\dfrac{1}{250}$ (f) $\dfrac{9}{1000}$

   (g) $\dfrac{18}{25}$ (h) $\dfrac{3}{4}$ (i) $\dfrac{31}{50}$

   (j) $\dfrac{1}{25}$ (k) $\dfrac{7}{50}$ (l) $\dfrac{41}{500}$

2. (a) $0.72 = \dfrac{18}{25}$ (b) $0.4 = \dfrac{2}{5}$ (c) $0.83 = \dfrac{83}{100}$

   (d) $0.31 = \dfrac{31}{100}$ (e) $0.42 = \dfrac{21}{50}$ (f) $0.38 = \dfrac{19}{50}$

3. (a) 0.1, 0.106, 0.16, 0.6, 0.601, 0.61
   (b) 0.107, 0.17, 0.7, 0.701, 0.71
   (c) 0.2, 0.203, 0.23, 0.302, 0.32
   (d) 0.1, 0.105, 0.15, 0.2, 0.5, 0.501
   (e) 0.104, 0.34, 0.4, 0.401, 0.43

Extra Exercises 17.2   Answers

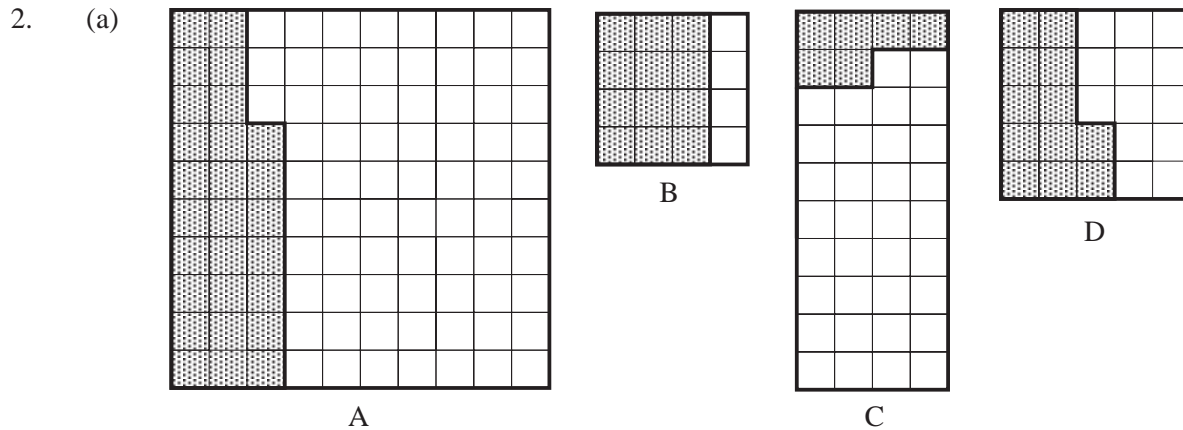1. (a) 0.8 (b) 0.22 (c) 0.004
   (d) 0.016 (e) 0.03 (f) 0.142

2. (a) $\dfrac{2}{5} = \dfrac{4}{10}$ (b) $\dfrac{3}{25} = \dfrac{12}{100}$ (c) $\dfrac{6}{50} = \dfrac{12}{100}$

   (d) $\dfrac{7}{250} = \dfrac{28}{1000}$ (e) $\dfrac{3}{8} = \dfrac{375}{1000}$ (f) $\dfrac{17}{200} = \dfrac{85}{1000}$

3. (a) 0.6 (b) 0.18 (c) 0.55
   (d) 0.24 (e) 0.95 (f) 0.075
   (g) 0.088 (h) 0.64 (i) 0.204

Extra Exercises 17.3

Answers

1.   (a)   44%   (b)   70%   (c)   60%   (d)   25%

2.   (a)

      (b)   A: 73%   B: 25%   C: 85%   D: 52%

3.   (a)   £49   (b)   18 m   (c)   £30

      (d)   25p   (e)   £3.20   (f)   12 kg

Extra Exercises 17.4

Answers

1.   (a) $\dfrac{11}{50}$ (b) $\dfrac{11}{25}$ (c) $\dfrac{29}{50}$

      (d) $\dfrac{7}{100}$ (e) $\dfrac{2}{25}$ (f) $\dfrac{3}{5}$

      (g) $\dfrac{1}{4}$ (h) $\dfrac{9}{10}$ (i) $\dfrac{4}{5}$

2.   (a)   11%   (b)   70%   (c)   24%

      (d)   14%   (e)   56%   (f)   85%

3.   (a)   *Maths* 32%   *English* 8%   *P.E.* 40%   *Science* 4%   *Art* 16%

4.   35%

5.   15%