

UNIT 17 *Arithmetic: Decimals, Fractions and Percentages*

Extra Exercises 17.1

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,
Fractions and Percentages***Extra Exercises 17.2**

1. Write these fractions as decimals:

(a) $\frac{8}{10}$

(b) $\frac{22}{100}$

(c) $\frac{4}{1000}$

(d) $\frac{16}{1000}$

(e) $\frac{3}{100}$

(f) $\frac{142}{1000}$

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

(a) $\frac{2}{5} = \frac{?}{10}$

(b) $\frac{3}{25} = \frac{?}{100}$

(c) $\frac{6}{50} = \frac{?}{100}$

(d) $\frac{7}{250} = \frac{?}{1000}$

(e) $\frac{3}{8} = \frac{?}{1000}$

(f) $\frac{17}{200} = \frac{?}{1000}$

3. Write these fractions as decimals:

(a) $\frac{3}{5}$

(b) $\frac{9}{50}$

(c) $\frac{11}{20}$

(d) $\frac{6}{25}$

(e) $\frac{19}{20}$

(f) $\frac{3}{40}$

(g) $\frac{11}{125}$

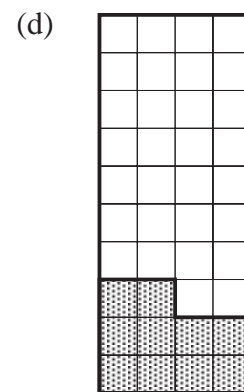
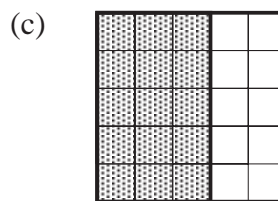
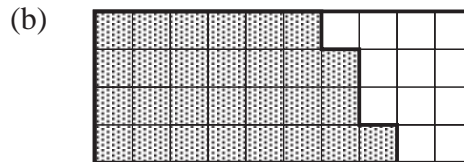
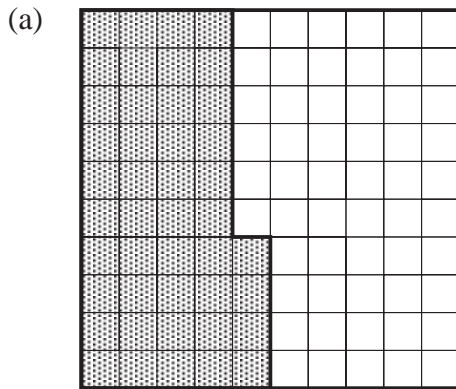
(h) $\frac{16}{25}$

(i) $\frac{51}{250}$

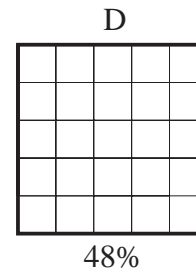
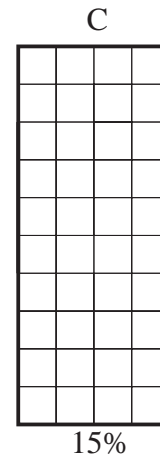
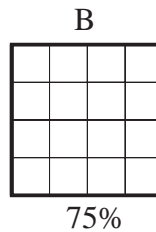
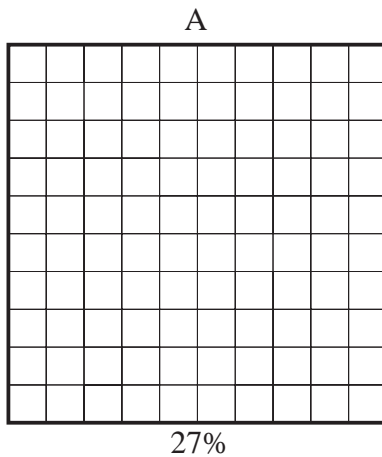
UNIT 17 *Arithmetic: Decimals, Fractions and Percentages*

Extra Exercises 17.3

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



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



(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, Fractions and Percentages*

Extra Exercises 17.4

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) $\frac{11}{100}$ (b) $\frac{14}{20}$ (c) $\frac{6}{25}$
- (d) $\frac{7}{50}$ (e) $\frac{14}{25}$ (f) $\frac{17}{20}$

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

<i>Maths</i>	8
<i>English</i>	2
<i>P.E.</i>	10
<i>Science</i>	1
<i>Art</i>	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. $\frac{17}{20}$ 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) $\frac{3}{5}$ (b) $\frac{7}{25}$ (c) $\frac{9}{25}$
 (d) $\frac{11}{1000}$ (e) $\frac{1}{250}$ (f) $\frac{9}{1000}$
 (g) $\frac{18}{25}$ (h) $\frac{3}{4}$ (i) $\frac{31}{50}$
 (j) $\frac{1}{25}$ (k) $\frac{7}{50}$ (l) $\frac{41}{500}$
2. (a) $0.72 = \frac{18}{25}$ (b) $0.4 = \frac{2}{5}$ (c) $0.83 = \frac{83}{100}$
 (d) $0.31 = \frac{31}{100}$ (e) $0.42 = \frac{21}{50}$ (f) $0.38 = \frac{19}{50}$
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

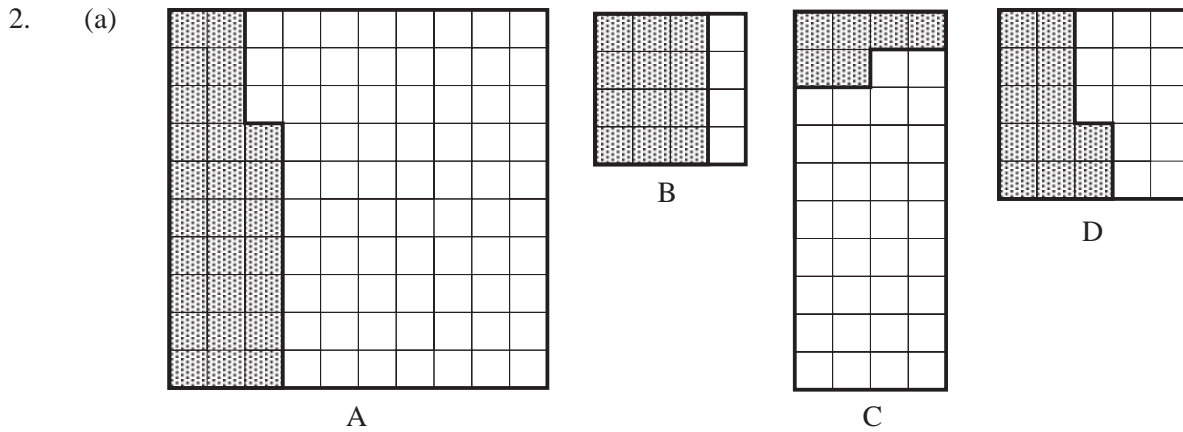
Answers

1. (a) 0.8 (b) 0.22 (c) 0.004
 (d) 0.016 (e) 0.03 (f) 0.142
2. (a) $\frac{2}{5} = \frac{4}{10}$ (b) $\frac{3}{25} = \frac{12}{100}$ (c) $\frac{6}{50} = \frac{12}{100}$
 (d) $\frac{7}{250} = \frac{28}{1000}$ (e) $\frac{3}{8} = \frac{375}{1000}$ (f) $\frac{17}{200} = \frac{85}{1000}$
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%



- (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) $\frac{11}{50}$ (b) $\frac{11}{25}$ (c) $\frac{29}{50}$
 (d) $\frac{7}{100}$ (e) $\frac{2}{25}$ (f) $\frac{3}{5}$
 (g) $\frac{1}{4}$ (h) $\frac{9}{10}$ (i) $\frac{4}{5}$
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%