Answers – Basics of Fractions Book 3

Page 3

Test your times table and corresponding divisions.

1.	3 × 5 = 15 18 ÷ 2 = 6 24 ÷ 2 = 12 8 × 4 = 32 20 ÷ 5 = 4	27 ÷ 9 = 3 3 × 7 = 21 3 × 8 = 24 40 ÷ 8 = 5 7 × 5 = 35	36 ÷ 6 = 6 3 × 6 = 18 36 ÷ 4 = 9 48 ÷ 6 = 8 8 × 6 = 48	5 × 7 = 35 18 ÷ 3 = 6 4 × 7 = 28 18 ÷ 6 = 3 25 ÷ 5 = 5
2.	2 × 12 = 24 3 × 12 = 36 4 × 12 = 48 5 × 12 = 60 6 × 12 = 72	30 ÷ 2 = 15 30 ÷ 3 = 10 30 ÷ 5 = 6 30 ÷ 6 = 5 30 ÷ 10 = 3	24 ÷ 2 = 12 24 ÷ 3 = 8 24 ÷ 4 = 6 24 ÷ 6 = 4 24 ÷ 8 = 3	2 × 24 = 12 2 × 25 = 50 3 × 11 = 33 3 × 15 = 45 10 × 4 = 40
3.	10 ÷ 2 = 5 10 ÷ 5 = 2 10 ÷ 10 = 1	10 × 2 = 20 10 × 4 = 40 10 × 5 = 50	100 ÷ 2 = 50 100 ÷ 5 = 20 100 ÷ 4 = 25	60 ÷ 10 = 6 60 ÷ 5 = 12 60 ÷ 6 = 10

Page 4

Q1. c. i. False; ii. True; iii. True; iv. False

Page 5

Order of dividing. $4 \div 2 = 2$ and $2 \div 4 = \frac{1}{2}$			
a. 10 ÷ 2 = 5	b. 10 ÷ 5 = 2	c. 20 ÷ 2 = 5	d. 20 ÷ 5 = 10
2 ÷ 10 = 0.2	5 ÷ 10 = 0.5	2 ÷ 20 = 0.2	5 ÷ 20 = 0.1

Page 6

Q1. d. Numerator and denominator.

Page 7

Q1: a) divide, factor b) unit, one, numerator
c) numerator, denominator. d) one
e) equal f) one
Check page 35 of the workbook.

Answers to Basics of Fractions Book 3

Page 9

Q1: a) $\frac{1}{4}$ of 12 = 12 ÷ **4** = **3** × 1. = **3** strawberries

b) $\frac{1}{6}$ of 12 = 12 ÷ **6** = **2** × 1. = **2** strawberries

Page 11

a) $\frac{3}{4}$ of 12 = 12 ÷ **4** = **3** × 3. = **9** strawberries

c) $\frac{5}{6}$ of 12 = 12 ÷ **6** = **2** × 5. = **10** strawberries

Page 12

Q1: $\frac{1}{2}$ of 8 = 4. To half any number divide by 2.

Q2: a) 8 b) 13 c) 18 d) 23 e) 33

f) $7\frac{1}{2}$ g) $12\frac{1}{2}$ h) $8\frac{1}{2}$ i) $15\frac{1}{2}$ j) $17\frac{1}{2}$

Q3: a) 10 mm, 5mm b) 100 cm, 50cm

c) 1000 m, 500 m d) 1000 g, 500 g

e) 1000 ml 500ml

Q4: a) £1.50 b) £0.75 c) £6.50

Page 13

Q1: a) 10 + 2.5 = 12.5 b) 5 + 2.5 = 7.5

c) 25 - 3.5 = 21.5 d) 7 - 3.5 = 3.5

e) 15 f) 2.5 cm, 25 mm

g) 2.5 kg, 2500 g h) 2.5 m = 250 cm

i) 1 *l* = 1000 *ml* j) 30 min

Q2: d. Yes.

Q3: c) 2.5 cm 3.5 cm d) 3 cm long

e) 2, 4, 6, 10, 20, 30

Page 14

Q1: $\frac{2}{3}$ of 6 = 4. To find a third divide by 3.

Q2: a) 6 b) 5 c) 9 d) 7 e) 12

f) 15 g) 10 h) 11. $\frac{1}{3}$ of 300 =100 ml

Q3: a) 12 b) 10 c) 18 d) 14 e) 24

f) 30 g) 20 h) 22 $\frac{2}{3}$ of 300 = 200 ml.

Q4: a) £2.00 b) £6.00 c) £2.00

d) £0.30 e) £0.50 f) £3.00

Page 15

Q1: a) 3 + 12 = 15 b) 6 + 18 = 24

c) 14 - 8 = 6 d) 16 - 10 = 6

e) 40 - 30 = 10 f) 10 cm, 100 mm

g) 6 kg, 6000 g h) 2 *l* , 2000 m*l*

i) 8 km = 8000 m j) 40 min

Q2: ☑, ☒ ☑, ☒ ☒, ☒, ☑

Q3: c) 2 cm, 3 cm d) 4 cm long

Page 16

Q2: a) To workout a quarter divide by 4.

Q2: i) 1 ii) 2 iii) 3

b) To workout 3 quarters divide by 4 and times by 3

i) 3 ii) 6 iii) 9

c) i) 1.5 or $1\frac{1}{2}$ ii) 2.5 or $2\frac{1}{2}$

Page 17

Q1: a) 2 + 15 = 17 b) 6 + 24 = 30

c) 21 - 6 = 15 d) 27- 11 = 16

e) 10 + 15 = 25 f) 3 cm, 30 mm

g) 12 kg, 12000 g h) 1 *l*, 1000 m*l*

i) 9 km = 9000 m j) 15 min

Q2: ☒, ☑ ☒, ☑ ☑, ☒

Q3: c) 2 cm, 6 cm d) 1.5 cm long

Page 18

Q2: The rule is divide by the denominator and multiply by the numerator.

Q3: a) £0.20 b) £4.00 c) £0.80

d) £0.80 e) £0.30 f) £6.30

Page 19

Q1: a) 3 + 12 = 15 b) 10 + 28 = 38

c) 18 – 3 = 15 d) 24 – 22 = 2

e) 12 – 9 = 3 f) 3 cm, 30 mm

g) 6 kg, 6000 g h) 8 *l* , 8000 m*l*

i) 3 km = 3000 m j) 12 min.

Q2: a) Triangle b) Kite c) 72^0

Q3: c) 8 cm - 4 cm = 4 cm d) 1.5 cm long

Answers to Basics of Fractions Book 3

Page 20

Q1: Colour 1, 5, 2 and 10 parts

Q2: Multiples 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

a) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

b) 5, 10, 15, 20, 25, 30, 35, 40, 45, 50

Q3: a) £1.00 b) £15.00 c) £5.00

d) £50.00 e) £0.10 f) £50.50

Page 21

Q1: a) 2 + 50 = 52 b) 60 + 30 = 90

c) 25 – 4 = 21 d) 55 – 11 = 44

e) 35 + 12 = 47 f) 10 km, 10 000 m

g) 20 kg, 20 000 g h) 15 *l*, 5000 m*l*

i) 2 cm = 20 mm j) 20 min

Q2: a) 60^0, b) 180^0 c) 6 beads. d) $^5/_6$ is white

Q3: c) 10 cm - 1 cm = 9 cm d) 1.5 cm long

Page 22

Q1: Colour 1 and 3 parts.

a) 3 b) 6 c) 12

Q2: Unit fraction has a numerator of 1.

The rule is divide by the denominator and multiply by the numerator.

Q3: $^5/_7$ were adults.

a) 10 children b) 25 adults c) £16.00

Page 23

Q1: a) 11 + 50 = 61 b) 10 + 24 = 34

c) 35 – 16 = 19 d) 54 – 21 = 33

e) 24 + 12 = 36 f) 11km, 11 000 m

g) 8 kg, 8 000 g h) 6 *l*, 6 000 m*l*

i) 24 cm = 240 mm j) 60 min

Q2: a) £15.00, 1500 p b) 15 m, 1500 cm

c) 15 cm, 150 mm d) 15 km, 15000 m

e) Unit fraction have numerator 1.

Q3: c) 3 cm - 2 cm = 1 cm d) 1.5 cm long.

Page 24

Q1: $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ $\frac{8}{8}$

Q2: a) $^1/_2$ white b) 12 white c) 9 green

Q3: a) i. 25p ii. £1.25 iii) £0.75

b) i. 50p ii. £2.50 iii) £1.50

Page 25

Q1: a) 11 + 50 = 61 b) 15 + 18 = 32

c) 42 – 9 = 33 d) 35 – 18 = 17

e) 4 + 11 = 15 f) 8 m, 800 cm

g) 42 kg, 42 000 g h) 9 *l*, 9 000 m*l*

i) 15 cm 150 mm j) 120 min.

Q2: a) 8 equal parts b) Octagon

d) i) $^5/_8$ red ii) $^3/_8$ blue

Q3: c) 14 cm - 2 cm = 12 cm e) 1.5 cm

Page 26

Q1: $\frac{1}{9}$ $\frac{2}{9}$ $\frac{3}{9}$ $\frac{4}{9}$ $\frac{5}{9}$ $\frac{6}{9}$ $\frac{7}{9}$ $\frac{8}{9}$ $\frac{9}{9}$.

Q1: b) i) $\frac{4}{9}$ ii) $\frac{5}{9}$

Q3: a) 10p b) £1.00 c) 20p d) £4.40

e) £2.00 f) £40.00 g) £2.20

h) £5.50 i) £20.00 j) £ 8.80

Page 27

Q1: a) 3 + 50 = 53 b) 40 + 14 = 54

c) 63 – 32 = 31 d) 30 – 25 = 5

e) 20 + 33 = 53 f) 7 km, 7000 m

g) 7 kg, 7000 g h) 6 *l*, 6 000 m*l*

i) 45 cm, 450 mm j) 120 min

Q2: a) 9 equal parts. A full circle is 360^0.

b) i. $^2/_9$ red ii. $^4/_9$ red c) i. 80^0 ii. 160^0.

Q3: c) 63 cm - 3 cm = 60 cm d) 1.5 cm 15 mm

Answers to Basics of Fractions Book 3

Page 28

Q1: a) milligram, gram, kilogram, tonne.
b) 1000 g c) 1000 kg

Q2: a) 1000 kg i) 500 kg ii) 250 kg
iii) 200 kg iv) 125 kg
b) 1000 g i) 500 g ii) 750 g
iii) 375 g iv) 800 g

Q3: a) £1.50 p b) £4.50 c) £0.60
d) £6.60 e) 4 kg

Page 29

Q1: a) 750 – 500 = 250 b) 750 – 200 = 550
c) 500 + 125 = 625 d) 400 + 625 = 1025
e) 750 – 750 = 0 f) 2.5 t, 2500
g) 1 t, 1000 kg h) 1.5 t, 1500 kg
i) 9 kg, 9000 g j) 2.5 kg, 2500 g

Q2: a) 30 g b) 60 g c) 120 g

Q3: a) $\frac{3}{4}$ kg b) $2\frac{1}{2}$ kg c) $\frac{1}{4}$ kg
d) $1\frac{1}{2}$ tonne e) $\frac{1}{5}$ tonne

Page 30

Q2: a) 50 cm b) 25 cm c) 20 cm d) 12.5 cm

Q3: a) 18 p b) 75 p c) 45 p

Page 31

Q1: a) 5 mm, b) 50 cm c) 500 m d) 60 cm
e) 40 cm f) 2.5 mm g) 25 cm h) 250 m
i) 800 m j) 700 m

Q2: a) 30 cm b) 60 cm c) 90 cm d) 20 cm

Q3: a) $20\frac{1}{2}$ cm b) $1\frac{3}{4}$ km
c) $20\frac{1}{2}$ km d) $2\frac{1}{2}$ cm

Page 32

Q1: a) 24 hrs i) 12 hrs ii) 18 hrs iii) 9 hrs
iv) 21 hrs v) 20 hrs vi) 16 hrs
b) 60 min i) 20 min ii) 30 min iii) 18 min
iv) 40 min v) 48 min vi) 100 min

Q2: a) $^1/_4$ = 15 min $^1/_2$ = 30 min $^1/_6$ = 10 min
$^1/_3$ = 20 min $^1/_5$ = 12 min.

Q2: b) 6:00 am = $^1/_4$ day 12:00 noon = $^1/_2$ day
9:00 am = $^3/_8$ day 3:00 pm = $^5/_8$ day
6:00 pm = $^3/_4$ day

Page 33

Q1: a) 7 days, 3.5 days. b) 12 months 9 months
c) 52 weeks 13 weeks

Q2: a) 1 month b) 2 month c) 3 months
d) 6 months

Q3: $\frac{3}{4}$ = 9 months $\frac{1}{2}$ = 6 months $\frac{1}{4}$ = 3 months
$\frac{2}{3}$ = 8 months $\frac{1}{6}$ = 2 months $\frac{1}{12}$ = 1 month
$\frac{6}{8}$ = 9 months $\frac{5}{6}$ = 10 months

Page 34

2. Write the total number of days in each month.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
31	28 29	31	30	31	30	31	31	30	31	30	31