

Book 3a - Answers to Revisit-Review-Revise Exercises

Chapter 1 Page 12

1. a 15.6 b 0.8
2. a 1.32 b 1.00
3. a 4.210 b 0.066
4. a 2000 b 400000
5. a 0.060 b 3200000
6. a 55500 b 0.00464
7. a 4 b 2 c 5
8. a 15000 b 600000 c 80
d 400 e 300 f 0.3
9. a 37000 b 40000
10. 4749
11. 20000 kg
12. a high, since both were rounded up
b low, because the top number (899300) is only rounded up a little but the number dividing into it (257) is rounded up quite a bit.

Chapter 2 Pages 21-22

1. a 311 b 53199 c 2nd May
2. Not safe - 34 kg over the 3000 kg max
3. €210
4. 96 full with 2 left over
5. Normal - £71 ($\sqrt{}$ better) Special £75
6. a 840 b 645000 c 122800
d 150 e 150 f 1210
7. a 4 b 21 c 1
8. a $(12 - 3) \times 2$ b $16 \div (8 - 4)$
c $(5 + 3) \times (9 - 8)$
9. a 1461 b \$664 c 10 of each
10. 576 times
11. £120.90
12. a 34 b 128
13. 7 fish suppers and 3 pie suppers
14. 40 grams

Chapter 3 Page 31

1. a 63° b 75° c 30°
d 55° e 36° f 20°
g 65° h 50° i 60°
j $124^\circ, 56^\circ, 56^\circ$
k $17^\circ, 163^\circ, 163^\circ$ l 40°
m 60° n $63^\circ, 54^\circ$ o $70^\circ, 70^\circ$
p $65^\circ, 30^\circ$ q $79^\circ, 79^\circ, 101^\circ$
r $35^\circ, 35^\circ, 110^\circ, 145^\circ, 145^\circ$

Chapter 4 Page 40

1. a -3 b -15 c 1 d -6
e 7 f -16 g 14 h 12
i -2 j -10 k 1 l -6
m 0 n -2 o -4 p -14
2. a 0 b 2 c 100
3. a -12 b -45 c 18 d 55
e -3 f -5 g 7 h 5
i -40 j 15 k -6 l 4
m 0 n -8 o -10 p 5
4. a 2 b 26 c 0
5. a Overdrawn by £455 b +£845
6. a 37°C b 41 or 42 years c 35 m

Chapter 5 Page 45

1. a (i) (4, 5) (ii) (1, -2) (iii) (-3, 0) (iv) (-4, 4)
b G & L c J & K d I & H
2. a see diagram b hexagon c $(-1, -1/2)$
3. a see diagram b S(-5, -3)
4. a see diagram b isosceles
c see triangle R'(-1, 0), S'(-5, -2), T'(-3, -4)
d R''((-1, 2), S''(-5, 4), T''(-3, 6)) e (-5, 4)

Chapter 6 Pages 52-53

- a $0.25, \frac{1}{4}$ b $0.45, \frac{9}{20}$
 c $0.1, \frac{1}{10}$ d $0.15, \frac{3}{20}$
 e $0.31, \frac{31}{100}$ f $0.175, \frac{7}{40}$
 g $0.56, \frac{14}{25}$ h $1.00, 1$
 i $0.333\dots, \frac{1}{3}$ j $0.04, \frac{1}{25}$
 k $0.666\dots, \frac{2}{3}$ l $1.5, \frac{11}{2}$

- a 55% b 30% c 7% d 90%
 e 30% f 60% g 95% h 36%
 i 120% j 0.5% k 150% l 1%

- a £84 b 54 kg c £24
 d 360 ml e £5000 f 30 l
 g £150 h €4000 i 2730 ml

- a £3150 b 60
 c £105 d 142.8 pounds

- a £34.50 b 534 kg c £324
 d £4.34 e £28000 f 1610
 g £2.25 h €392

- a (i) £25456.20 (ii) £2121.35
 b 93 washes

- a £7.29 b 160000

- 567

- George - £22464 (3)

Laura - £22990 (1)

Charlie - £22050 (2)

- £210 + £1668 = £1878 - £128 dearer

Chapter 7 Pages 65-66

- a $2m$ b g^2 c $12ab$ d $27vw$
 e $7x - 3y$ f h^3 g $6a^3$ h $72e^3$
 i $p - 10q$ j $6a$ k $8x$ l $6u$

- a 23 b 14 c 20 d -24
 e 25 f 48 g 2 h -2
 i -2 j 9 k 4 l 6

- a $6x + 15$ b $40p - 24q$
 c $h^2 + 7h$ d $18m^2 - 27mn$
 e $-10g + 40$ f $-x^2 + 5xy$
 g $-18a + 3a^2$ h $-e^3 + 9e^2f$

- a $6m + 2$ b $10a - 12$
 c $5p - 1$ d $4x$
 e $6k + 2$ f $13w + 5$
 g $t + 3$ h $10n + 10$
 i $4g - 4$

- $A = 20x + 10$

- a 4.25 b 10 c 5 d 0

- 200 miles

- 68°F

- £50

- a £1010 b £110

- a $V = LBH$ b 900 cm^3

- a $P = 4x + 2y + 3z$ b 59 c 12

Chapter 8 Page 77

- a square $A = l \times l$ 36 cm^2

- b rectangle $A = l \times b$ 91 cm^2

- c triangle $A = \frac{1}{2} b \times h$ 4500 cm^2

- d rhombus $A = \frac{1}{2} D \times d$ 96 cm^2

- e parm $A = b \times h$ 165 cm^2

- f kite $A = \frac{1}{2} D \times d$ 7000 mm^2

- g kite $A = \frac{1}{2} D \times d$ 12.6 m^2

- h trapezium 187.5 cm^2

- a 36 cm b 41 cm c 40 cm

- a 298 cm^2 b 480 cm^2 c 1245 cm^2

Chapter 9 Page 87

- a $\frac{2}{8}, \frac{3}{12}$ b $\frac{4}{6}, \frac{6}{9}$

- c $\frac{4}{14}, \frac{12}{21}$ d $\frac{2}{30}, \frac{3}{45}$

- a $\frac{1}{2}$ b $\frac{2}{5}$ c $\frac{5}{6}$ d $\frac{8}{15}$

- e $\frac{2}{3}$ f $\frac{1}{8}$ g $\frac{11}{12}$ h $\frac{1}{4}$

- i $\frac{1}{10}$ j $\frac{11}{40}$ k $\frac{1}{10}$ ** l $\frac{5}{16}$

- a $\frac{11}{30}$ b $\frac{17}{24}$ c $\frac{53}{60}$

- a $\frac{4}{3}$ b $\frac{13}{5}$ c $\frac{43}{8}$ d $\frac{109}{10}$

- a $1\frac{3}{4}$ b $2\frac{4}{5}$ c $7\frac{1}{3}$ d $7\frac{9}{13}$

- a $2\frac{7}{12}$ b $3\frac{4}{5}$ c $4\frac{1}{2}$ d $5\frac{5}{6}$

- e $6\frac{5}{8}$ f $2\frac{1}{2}$ g $3\frac{1}{4}$ h $4\frac{29}{35}$

- i $2\frac{5}{6}$ j $3\frac{11}{15}$ k $3\frac{4}{7}$ l $3\frac{7}{10}$

- $2\frac{5}{12}$ pizzas

- $8\frac{9}{20}$ km

- $13\frac{11}{60}$ cm

Chapter 10 Page 95

- a 18.84 cm b 28.26 cm
- 21.07 m
- 40 cm
- 85.0 cm
- 7.241 m
- a 20 cm, $P = 5 \times 100 + 2 \times 80 + 4 \times \frac{1}{2} \pi \times 20 = 510 + 160 + 125.6 = 795.6 \text{ cm} = 7.956 \text{ m}$ - (almost 8 m). **
b Cost = $8 \times \text{£}12 + \text{£}105.20 = \text{£}201.20$ **

Chapter 11 Page 103

- a 5:6 b 6:7 c 7:11
- a 5:8 b 3:11
- a 16:12 b 4:3
- a 2:3 b 3:5 c 3:2 d 8:11
e 11:7 f 5:7 g 3:2 h 23:31
i 1:2 j 5:3 k 2:3 l 20:13
- 20
- a 20 b 56
- 14 wet days means $30 - 14 = 16$ dry days
but $14:16 = 7:8$ is **not** $= 2:3$
If ratio IS $2:3$, there should be 12 wet days and 18 dry days.
- $12:20 = 3:5$

Chapter 12 Page 110

- 35000 cm^3
- 46000 cm^3
- 12.5 cm
- a 2.5 l b 0.85 l c 0.01 l
- a 4250 ml b 7050 ml c 400 ml
- a 13500 cm^3 b (i) 13500 ml (ii) 13.5 l
- 15000 cm^3
- 1575 cm^3

Chapter 13 Page 124

- a £2710 b £19800
c £15106 d £25792
- a £460.80 b £86.40
c £547.20

- a £20148 b £2690
- a £3525 b £19975
- Gross - £2809.45 Ded's - £537.90
Net Pay - £2271.55
- £90

Chapter 14 Page 130

- a 81 cm^2 b 37.2 cm^2 c 77 cm^2
d 112 cm^2 e 64 cm^2 f 88.2 cm^2
- 1908 m^2
- 1256 cm^2
- 25.12 cm
- 510 m^2
- a 78.5 cm b 31400 cm^2 c 90 & 45 cm
- a 20 cm b 728.84 cm^2
- a 126000 cm^3 b 126 litres
- 350 cm^3
- 1392 cm^3
- a 336 m^3 b 118 tonnes
- 1583 cm^2

Chapter 15 Page 144

- a 99 miles b 380 mph c 2 hr 45 min
- yes - over 74 mph - speed limit is 70 mph
- a 5hr12 min b 468 km
- a 39 mins b 21:09
- a 8.30 am b 30 min
c 16 km/hr d she stopped for 15 mins
e 45mins f 24 km/hr