

- p p q 6+u r 9p+q
s -g+4h t 0 u x+4
v 10l+1 w 9+w x 2a+b
y 3x² z 2q²
2. a 8p b 4w c m² d d⁸
e 12e f 0.5h g 1.2n h 5y²
i 48u j 56p k 12c² l 3pq
m w³ n u³ o 9ab p 15p^q
q 3y² r 10g³ s 20h³ t 4q²
u 4 v 10 w 2b x 2x
y 3x z 3x
3. a 7x² b 5a² c 7k² d 8y
e 21n² f 32mn g 30d h 63e²
i 100xy j 5a k 12a²b l 7
m 20f n 14x-4yo z+1 p 2a³+2
q 7x² r 8m-n s u+10 t 5x
u 8-2a v 8g-2 w 1 x 8x²-6
y 8p²-8 z 7k
4. a x²+10x+24 b y²+12y+20
c 4mn d 9a+3ab
e 80pq f k²+12k+32

Chapter 7 - Exercise 2 (page 56)

1. a 2a+10 b 3x+6 c 6g+6
d 7m+28 e 2x-6 f 5n-10
g 8p-8 h 10t-40 i 5m-20
j 2-2u k 14-7x l 30+15k
m 4a+4b n 2c+2d o 5m-5n
p 10d-10e q 60+20x r 120-30w
s 100a-300 t 50g-300
2. a 6x+2 b 8a+6 c 3+15d
d 12-20k e 49h-14 f 40-32n
g 30a+6y h 12t+4z i 10b-8c
j 70k-14b k xy+2x l ab-8a
m vw-v n a²-3a o p-p²
p 2x+x² q 3pq+pr r 10a-20a²
s 20u²-2uy t 6a+4b+2 u 10v+30w+40y
v 15x-6y-12z w 10p+10q-40r x 24u-40v-72
3. a -3x-3 b -2a+10 c -m-n
d -m+n e -6p+6q f -x²-7x
g -p-p² h -2w²-18w i -7k²+k
j -8e²-40e k -3xy+8x² l -p³+10p²q
4. a 3(x+6)=3x+18
b 7(10-a)=70-7a

Chapter 7 - Exercise 3 (page 57)

1. a 2x+6 b 3a+17 c 5p+7
d 6w e 10k+2 f d+6
g 20+2g h 10x+20 i 12a-8
j 22q-10 k 5w-1 l 9a+24b
m 15m+16q n 20x-40y o 100p+6q
p 3x+4 q -10b r 100w+20z
s 2g t 7m+14n+1 u 2e-4f
2. a 5x+8 b 9a+21 c 7h+3
d 9m+3 e 17+v f 9+u
g 20e+4 h 12+2x i 8b+20a
3. a x+5 b a+2 c 4p+2
d 4p+4 e 2k+18 f 1+8m
g 8+2d h h²+h+3 i 3a²-5a+12
4. a -2x-2 b 3w+1 c 10-5d
d 20-5h e 5+6m f -2g
g 2a-20 h 6t i 7x-4
5. x²+4x-(5x-10)=x²-x+10

Chapter 7 - Exercise 4 (page 58)

1. a 2 b 5 c 7
d 20 e 70 f -1
g 6 h -9 i 3
j -8 k 0 l -50

- m 7 n 7 o 1/4
p 6²/3 q 1/6 r 2 1/2
2. a 10 b 7 c 27
d 6 e 100 f 4
g 2 h 3 i 8
j 6 k 10 l 8
m 28 n -1 o 4 1/2
p -4 q 2 1/2 r 4 3/4

Chapter 7 - Exercise 5 (page 59)

1. a 3 b 2 c 1
d 6 e 3 f 4
g 4 h 5 i 5 1/2
j 3 k 5 l -1
m 2 n 4 o 1
p 6 q 4 1/2 r 5
s 2 t 5 u 1
v 9 w 2 x 8
y 12 b 9 c 16
d 4 e 5 f 8
g 12 h 5 i 100
j 4 k -4 l -3
m 1/3 n 11 o 7 1/3
p 2 q -2 r 1/2
s 9 t -1 1/2 u 3 1/2
v 20 w 2 x 4
y 1 z 4

Chapter 7 - Exercise 6 (page 60)

1. a 9 b 2 c 24 d -4
e 14 f -7 g 9 h 27
i 0 j 18 k 12 l 5-4
2. a 20 b 28 c 16 d 32
e 64 f 160 g 1280 h 2
3. a 16 b 1 c 16 d 6
e 20 f -5 g -40 h 36
4. a 11 b 24 c -10
d 21 e 90 f 31
g 2 h 2 i 5
5. a 9 b 25 c 1 d 2
e 49 f 18 g 6 h 1
i 3 j 4 k 5 l 49
6. a 18 b 1 c 4
d 18 e 44 f 5
g 59 h 3 i 6
7. a 1 b 2 c 4
d 2 e 2 f 2
g 3 h 3 i 300
8. a 7 b 90 c 150
d 100 e 52 f 250
g 22 h 60 i 30
j 8 k 10

Chapter 7 - Exercise 7 (page 62)

1. a W=x+y b 5 c 2.5
2. a L=m-n b 2-25 c 12-75
3. a S=D/T b 60mph c 330 miles
4. a C=10+5k b £40
5. a F=1.8C+32 b 86°F
6. a T=10g+h b 215 mins
7. a P=2a+2b+c b 26 c 16
8. a L=x+y b P=6x+2y c 38
9. a P=4n+2mb 32 c 5
10. a S=4x+40 b 120
11. (i) a A=3(x+6)=3x+18 c 33
(ii) a A=4(x+10)=4x+40 c 60
(iii) a A=7(20-x)=140-7x c 105
(iv) a A=2(9-x)=18-2x c 8

12. (i) a A=6p b A=4(p-3)
c A=6p-4(p-3)=2p+12 d 20
(ii) a A=q(q+4) b A=8(q-2)
c A=q(q+4)-8(q-2)=q²-4q+16
d 28

Answers to CHAPTER 8 (page 67)

Chapter 8 - Exercise 1 (page 67)

1. a Perimeter = 28 cm, Area = 40 cm²
b Perimeter = 27 cm, Area = 44 cm²
c Perimeter = 36 cm, Area = 81 cm²
d Perimeter = 40 cm, Area = 60 cm²
e Perimeter = 15 cm, Area = 9 cm²
f Perimeter = 54 cm, Area = 170 cm²
g Perimeter = 36 cm, Area = 54 cm²
h Perimeter = 28 cm, Area = 21 cm²
i Perimeter = 2 cm, Area = 0.25 cm²
2. a 81 cm² b 24000 mm² c 5 m²
d 540 m² e 72.5 cm² f 2.4 m²
3. a 170 m² b 10 c £130
4. a 14.8 m b £35
5. £600

Chapter 8 - Exercise 2 (page 69)

1. a/b see drawing
c 48 cm² d 24 cm²
2. (i) a 120 cm² b 60 cm²
(ii) a 60 cm² b 30 cm²
(iii) a 130 cm² b 65 cm²
3. a 30 cm² b 48 cm² c 35 cm²
d 1100 mm² e 6.2 m² f 9.62 cm²
4. a 18 cm² b 31.5 cm² c 9.5 cm²
d 26 cm² e 875 cm² f 4800 mm²
5. 6.4 m²
6. 180 cm² × 2 = 360 cm² (fish has 2 sides)
7. 112.5 cm²
8. 1.26 cm²
9. a 2.3 cm b 5.175 cm²
10. 140 cm²
11. a 150 cm² b 176 m² c 4800 mm²
12. 10 cm

Chapter 8 - Exercise 3 (page 72)

1. 160 cm²
2. a 99 cm² b 65 cm² c 72 cm²
d 54 cm² e 22 cm² f 50 cm²
g 138 cm² h 31.5 cm² i 14.4 cm²
3. 5580 mm²
4. 104 m²
5. 14.4 m²
6. 1200 cm²
7. 240 cm²
8. 14.88 m²
9. a RSUP and PQST b 810 cm² - 414 cm²
10. 15 cm

Chapter 8 - Exercise 4 (page 74)

1. a 56 cm² b 40.5 cm² c 108 cm²
d 44 cm² e 2200 mm² f 3672 mm²
2. 11 cm²
3. 15360 cm²
4. 1704 cm²