

GENERAL MATHS BOOK 4G

What Have I learned – Answers

****Please take
extra copy of
these answers****

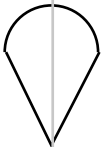

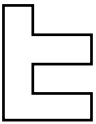
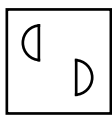
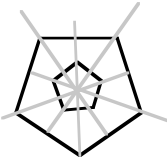
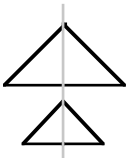
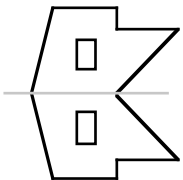
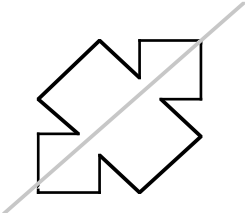
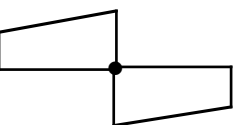
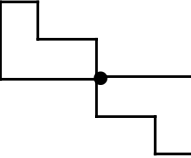
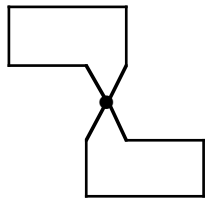
Answers to Chapter 1 (page 24)

1. -15°C
2. $-\text{£}20$
3. 69 or 70
4. (a) 5°C (b) -15°C
5. 14°C
6. (a) -4 (b) 6 (c) -6 (d) -10 (e) 0 (f) -1
 (g) -9 (h) -8 (i) -30 (j) -3 (k) -7 (l) -9
 (m) -2 (n) -12 (o) -32 (p) 0 (q) -45 (r) -2
 (s) -1 (t) -10
7. (a) -4 (b) -40 (c) 15 (d) -21 (e) -6 (f) -42
8. (a) P(2, -1) Q(2, 2) R(-2 , 2)
9. (a) see drawing (b) parallelogram

Answers to Chapter 2 (page 30)

1. 1.33.... metres/minute
2. (a) 3 letters/min (b) 3.5 letters/min (c) Mick
3. (a) $\text{£}18.40$ (b) $\text{£}73.60$
4. 15 minutes
5. 208 hours
6. 135 grams
7. (a) 11.2 cm (b) 21 cm (c) 84 cm
8. Laura ($4.5/\text{min}$) Louise ($4.6/\text{min}$), Louise

Answers to Chapter 3 (page 41)

1.     
2. (a)  (b)  (c) 
3. (a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{6}$
4. (a)  (b)  (c) 

Answers to Chapter 4 (page 51)

- (a) 343 (b) 625
- (a) 216 (b) 128 (c) 1 (d) 100000 (e) 81 (f) 1024
(g) 0 (h) 4096
- 4.7×10^5
- (a) 2.5×10^4 (b) 6.4×10^3 (c) 1.95×10^5
(d) 7.49×10^2 (e) 2.8×10^6 (f) 1.67×10^7
(g) 3×10^6 (h) 7.4×10^6 (i) 4.5×10^6
- (a) $3.786 \times 10^3 = 3.79 \times 10^3$
(b) $2.5837 \times 10^4 = 2.58 \times 10^4$
(c) $2.966841 \times 10^6 = 2.97 \times 10^6$
- 36100
- (a) 28000 (b) 17200 (c) 6800 (d) 900000 (e) 7810000 (f) 23000000
- 3720000

Answers to Chapter 5 (page 61)

- (a) 10.6 cm (b) 25 m (c) 6.89 m
- (a) 10.5 cm (b) 5.1 m (c) 85.9 cm
- (a) (b) see diagram (c) 6.40 units
- (a) 26.9 cm (b) 13.1 cm (c) 152.1 cm (d) 1.7 m
- 21.7 cm

Answers to Chapter 6 (pages 76/77)

- (a) $\frac{80}{240}$ (b) $\frac{1}{3}$
- (a) $\frac{7}{220}$ and $\frac{10}{350}$ (b) 0.032 and 0.029 (c) Ash Road
- (a) 0, 3, 6, 9, 12 (b) (0, 0) ($\frac{1}{2}$, 3) (1, 6) ($\frac{1}{2}$, 9) (2, 12)
(c) see diagram
- (0, 0) (3, 1) (6, 2) (9, 3) and see diagram
- (a) (b) (0, -2) (1, 1) (2, 4) (3, 7) (c) see diagram
- (a) (b) (-2, -9) (-1, -5) (0, -1) (1, 3) (2, 7) (c) see diagram
- (a) (b) (0, -4) (2, -3) (4, -2) (6, -1) (8, 0) (c) see diagram
- (a) (b) (0, 2) (2, 5) (4, 8) (6, 11) (8, 14) (c) see diagram

Answers to Chapter 7 (page 87)

- (a) 78 cm^2 (b) 30 cm^2
- (a) 15 cm^2 , 15 cm^2 , 20 cm^2 , 20 cm^2 , 12 cm^2 , 12 cm^2 (b) 94 cm^2
- (a) 120 cm^2 , 120 cm^2 , 45 cm^2 , 45 cm^2 , 24 cm^2 , 24 cm^2 (b) 378 cm^2
- 216 cm^2
- 174 cm^2
- (a) see net (b) $28 \text{ cm}^2 + 28 \text{ cm}^2 + 21 \text{ cm}^2 + 21 \text{ cm}^2 + 12 \text{ cm}^2 + 12 \text{ cm}^2$ (c) 122 cm^2

Answers to Chapter 8 (pages 98/99)

- (a) 21 cm^3
- (a) 120 cm^3 (b) 1200 cm^3 (c) 168 cm^3
- 4 cm
- (a) 6 litres (b) 3.4 litres (c) 0.5 litres
- (a) 16000 cm^3 (b) 16000 ml (c) 16 litres
- (a) 1845 cm^3 (b) 855 cm^3
- 4.8 m^3
- (a) 144000 ml (b) 146 litres (c) 12 minutes

Answers to Chapter 9 (page 100)

- A – E
- (a) 1.5 (b) 36 cm
- (a) 2.5 (b) 10 cm
- (a) 1.25 (b) 15 cm
- 20 cm
- (a) 0.2 (b) 7 cm

Answers to Chapter 10 (page 121)

- (a) 62.8 cm (b) 81.64 cm
- (a) 300 cm (b) 150 cm
- 94.2 mm
- (a) 50.24 cm^2 (b) 706.5 m^2
- (a) 45 mm (b) 6358.5 mm^2
- 127.2 mm^2 7. 572 cm^2 8. 443 cm^2

Answers to Chapter 11 (page 132)

- (a) 5:6 (b) 6:7 (c) 7:5
- (a) 16:12 (b) 4:3
- (a) 6:7 (b) 4:7 (c) 2:5 (d) 4:3 (e) 7:11 (f) 4:3
(g) 3:2 (h) 1:2
- 100 females
- (a) 25 soor plumes (b) 45
- 12 7. Jack £60, Jill £20 8. £14000 and £12000
- (a) 6:5 (b) £18000 : £15000

Answers to Chapter 12 (page 144)

- a = 45 b = 80 c = 34 d = 81 e = 75 f = 30 g = 40 h = 110 i = 80
- (a) 90° (b) 64°
- 32°
- a = 40 b = 50 c = 160 d = 70 e = 110 f = 68
- 17.5 cm

Answers to Chapter 13 (page 160)

- (a) 8.4 m (b) 7.6 cm
- 140 cm
- (a) 4.5 cm (b) 16.6 mm (c) 35 cm (d) 4.8 cm (e) 14.1 mm (f) 9.6 cm
- (a) 41.2° (b) 36.9° (c) 51.3° (d) 53.1° (e) 57.1° (f) 35.4°
- 053°
- (a) 11 cm (b) 49.7°

Answers to Chapter 14 (page 169)

- (a) 11 (b) 5 (c) 24 (d) 75 (e) 720 (f) 480
(g) 2 (h) 6
- (a) 2.5 (b) 2 (c) 0.5 (d) 25 (e) 100 (f) 2
(g) 0 (h) 50 (i) 0 (j) 0 (k) 256 (l) 5
- 13 bags 4. £175.25 5. 3
- (a) £1.00 (b) £1.30
- 10 8. 20

Answers to Chapter 15 (page 176)

- (a) $2x + 10$ (b) $7x - 21$ (c) $4a + 4b$ (d) $5p - 35$ (e) $6x + 10$ (f) $20x - 30$
(g) $21t + 15s$ (h) $30m - 10n$ (i) $ab + ac$
- (a) $4x + 14$ (b) $5x + 1$ (c) $6x + 3$ (d) $2x + 11$ (e) $3x + 2$ (f) $6x + 18$
- (a) 1, 2, 3, 6, 9, 18 (b) 1, 2, 11, 22 (c) 1, 2, 4, 8, 16, 32
- (a) 4 (b) 2 (c) 9
- (a) $2(x + 6)$ (b) $4(x - 2)$ (c) $5(x + 6)$ (d) $3(a + 2b)$ (e) $7(t - 2s)$ (f) $8(p + 4q)$
- (a) $2(3x + 7)$ (b) $3(3a - 7)$ (c) $5(2p + 3q)$ (d) $4(2d - 3f)$ (e) $7(3x + 4y)$ (f) $9(2d - 5w)$
- (a) $7(x - y + z)$ (b) $2(t + 2w + 6z)$ (c) $5(a - 4b + 6c)$
(d) $2(2a + 5b + 7c)$ (e) $3(2r - 4q + 5)$ (f) $g(t - h + c)$

Answers to Chapter 16 (page 182)

- (a) 115 seconds (b) 135 seconds
- (a) $28 - 32$ (b) $70 - 80$ (c) $220 - 260$ (d) $1450 - 1750$
(e) $8.5 - 8.7$ (f) $18.9 - 19.5$ (g) $27.8 - 28.8$ (h) $340 - 400$ (i) $0.6 - 1.0$
- (a) 0.337 mg (b) 0.327 mg
- (a) no (b) yes (c) yes (d) no
- (54 ± 2) kg
- (a) (65 ± 5) g (b) (130 ± 2) cm (c) (1600 ± 100) m
(d) (8.5 ± 0.1) cm (e) (20 ± 0.3) cm (f) (0.7 ± 0.1) g
- 6.5 m

Answers to Chapter 17 (page 191)

- (a) 25p (b) £1
- (a) 30 g (b) 2.1 kg 3. 144 seconds
- (a) $t = kn$ (b) $k = 150$ (c) 900 seconds
- (a) $C = kd$ (b) $k = 3.14$ (c) 47.1 cm
- (a) $C = kd$ (b) £150.50