

GENERAL MATHS BOOK 3G

What Have I learned – Answers

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

Answers to Chapter 1 (page 13)

- (a) 72 (b) 20 (c) 102
- (a) 180 (b) 1320
- (a) 1200 (b) 2400
- (a) 14000 (b) 30000
- (a) 2000 (b) 200 (c) 400
- (a) 630 (b) 20600 (c) 1300 (d) 30700 (e) 8000 (f) 24000
- (a) 1230 (b) 4840 (c) 1060 (d) 6200 (e) 6500 (f) 61800
- (a) 42 (b) 216 (c) 270 (d) 8 (e) 69 (f) 210

Answers to Chapter 2 (page 26)

- (a) obtuse (b) right (c) straight (d) acute (e) reflex
- (a) $\angle PMG$ (b) $\angle TLW$ (c) $\angle FQJ$ (d) $\angle ACB$
- (a) 55° (b) 35° (c) 105°
- Check drawings
- (a) 50° (b) 35° (c) 55° (d) 37°
- (a) 60° (b) $* = 75^\circ$ $\bullet = 30^\circ$ (c) 28

Answers to Chapter 3 (page 40)

- 3.6
- Check sketches
- (a) 3.2 (b) 15.8 (c) 4.4 (d) 0.9 (e) 7.0
- (a) 6.37 (b) 10.19 (c) 0.97 (d) 3.13 (e) 0.03
- (a) 8.21 (b) 9.36 (c) 29.78 (d) 10.49 (e) 8.67 (f) 10.89
(g) 10.8 (h) 0.99
- (a) 25.2 (b) 73.8 (c) 87.0 (d) 6.96 (e) 4.3 (f) 9.7
(g) 2.75 (h) 1.34
- (a) 31.2 (b) 8.16 (c) 427 (d) 96.1 (e) 1713 (f) 64.1
- (a) 1.62 (b) 0.85 (c) 0.932 (d) 0.932 (e) 0.35 (f) 2.68
(g) 2.647 (h) 0.378 (i) 0.0164

Answers to Chapter 4 (page 49)

- $\frac{23}{100}$, 0.23 2. $\frac{3}{10}$, $\frac{9}{20}$, $\frac{4}{5}$
- (a) 0.65 (65%) (b) 0.44 (44%) (c) $0.675 (67\frac{1}{2}\%)$
- 90%
- (a) £88.80 (b) £123.50 (c) £1.76 (d) £147
- (a) £17 (b) £68
- 8.32 litres 8. Best in Test 3 (80%) instead of 75% and 70%

Answers to Chapter 5 (page 63)

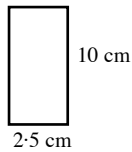
1. check diagram

2. 180 cm

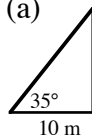
3. (a) 8 cm x 5 cm

(b) 96 m x 60 m

4.



5. (a)



(b) 7 cm

(c) 28 m

6. (a) S.W.

(b) 90° anti

(c) S.W.

Answers to Chapter 6 (page 84)

1. £18606

2. £182.40

3. (a) £9.60

(b) £7.20

4. £38.40

5. (a) £208

(b) £39

(c) £247

6. (a) £496

(b) £12896

7. £405

8. £568.65

Answers to Chapter 7 (page 90)

1. (a) $13p$

(b) p

(c) $8p$

(d) $8m + 4$

(e) $v - 2$

(f) $x + 8$

(g) $7a + 6y$

(h) $6x + 2y$

(i) $7p + 5q$

2. (a) $5x + 5$

(b) $6x - 24$

(c) $3x - 6$

(d) $7x + 56$

(e) $2a + 2b$

(f) $5p - 5q$

(g) $6x + 8$

(h) $8w - 4$

(i) $10x + 10y + 20z$

(j) $6a - 9b + 3c$

(k) $15p - 10q + 20r$

(l) $3a + 2b + c$

3. (a) $4x + 10$

(b) $7y$

(c) $8t + 6$

(d) $4x + 14$

(e) $3x + 1$

(f) $11x + 2y + 6$

4. (a) $x = 7$

(b) $y = 15$

(c) $a = 10$

(d) $m = 9$

(e) $p = 3\frac{1}{2}$

(f) $c = 7$

(g) $k = 6$

(h) $d = 5$

(i) $x = 5$

(j) $y = 8$

(k) $x = 7$

(l) $a = 10$

Answers to Chapter 8 (page 99)

1. Safety, Gains interest

2. (a) £720

(b) £18720

3. (a) £96

(b) £8

(c) £72

4. £119

5.

New Bonnet	=	£64.50
Front Bumper	=	£47.90
Labour	=	£43.20
Sub Total	=	£155.60
VAT	=	£27.23
Total Bill	=	£182.83

6.

516 units	=	£70.69
VAT	=	£5.66
Amount Due	=	£76.35

Answers to Chapter 9 (page 106)

1. 6.5 cm

2. 8.4 cm

3. 37.7 cm

4. 144.44 cm

5. (a) 15 cm

(b) 47.1 cm

6. 25.12 cm

7. (a) 20 cm

(b) 31.4 cm

(c) 94.2 cm

Answers to Chapter 10 (pages 122-123)

1. (a) (i) 9 hrs 5 mins (ii) 10 hrs 40 mins (iii) 5 hrs 10 mins
 (b) 7 pm (c) Yes, by 5 minutes
2. 230 miles 3. Yes, he averaged 80 mph 4. 35 km/hr
5. 3 hrs 30 mins 6. 1015 7. 52 km
8. (a) 7 am (b) (i) 60 miles (ii) 30 miles (c) $\frac{1}{2}$ hr
 (d) 20 miles (e) 40 mph (f) 36 mph

Answers to Chapter 11 (page 131)

1. (a) $\frac{4}{5}$ (b) $\frac{3}{4}$
2. (a) eg $\frac{10}{14}, \frac{15}{21}$ (b) eg $\frac{8}{22}, \frac{12}{33}$
3. (a) $\frac{4}{5}$ (b) $\frac{2}{3}$ (c) $\frac{7}{8}$
4. (a) 11 (b) 7
5. (a) 18 (b) 15 6. 32
7. (a) $\frac{1}{4}$ (b) $\frac{1}{5}$ (c) $\frac{7}{10}$
8. (a) 90 (b) £3.50 (c) 11 (d) £40
 (e) £70 (f) 80p (g) £4.50 (h) £3.60
 (i) 45p (j) £1.00

Answers to Chapter 12 (pages 147-150)

1. (a) Valencia (b) Edinburgh (c) 80°F (d) 74°F
 (e) 61°F (f) Chicago (g) Chicago & Edinburgh
 (h) Rome & Valencia (i) Edinburgh
2. (a) (i) 50p (ii) £1.20 (b) 91-93 & 94-95 (c) upwards
 (d) (i) 30p (ii) 57p (e) prices did not rise as much
 (f) cigars by 43p (g) bread from 2001 -> 2002
 (h) (i) 23p (ii) 40p
3. (a) (i) $\frac{1}{4}$ (ii) $\frac{1}{3}$
 (b) (i) 6 hrs (ii) 6 hrs (iii) 4 hrs (iv) 8 hrs
4. (a) 10 (b) Chris & Harry in December & February
 (c) Andy 15 in January (d) Yes 3 men were called out
 (e) Only John called out once
5. (a) $\begin{array}{l} 2 \mid 1 \ 4 \ 4 \\ 3 \mid 0 \ 1 \ 5 \ 5 \ 8 \\ 4 \mid 1 \ 2 \ 3 \ 5 \ 6 \ 9 \\ 5 \mid 0 \ 1 \ 2 \ 3 \ 5 \ 8 \ 9 \ 9 \\ 6 \mid 0 \ 0 \ 1 \ 2 \ 6 \\ 7 \mid 1 \ 2 \ 2 \\ 8 \mid 0 \ 4 \ 6 \end{array}$ (b) 33 children (c) 52
6. (a) 1, 5, 5, 5, 5, 12, 18, 18, 20, 20 (b) 8.5 (c) 5
7. (a) 5 (b) 2 (c) 1, 1, 2, 2, 2, 2, 3, 3, 3, 6 (2)
 (d) 2.5

Answers to Chapter 13 (page 162)

1. (a) 169 (b) 361 (c) 1849 (d) 10201 (e) 60p (f) £24
2. 289 cm²
3. (a) 6.32 (b) 9.22 (c) 13.04 (d) 4.35
4. (a) 10.3 cm (b) 13.9 cm (c) 20.2 cm (d) 141.8 cm
5. 14.9 cm 6. 24.3 cm

Answers to Chapter 14 (page 179)

1. (a) 13 cm² (b) 16 cm²
2. (a) 45 cm² (b) 460 mm² (c) 36 m²
3. (a) 18 cm² (b) 9 cm²
4. (a) 14 cm² (b) 60 cm² (c) 11.25 cm²
5. (a) 67 cm² (b) 231 cm²

Answers to Chapter 15 (page 195)

1. (a) £9 (b) £60 (c) £27 (d) £60 (e) 60p (f) £24
2. £21840 3. £1450 4. £3.80
5. (a) £3355 (b) £405
6. (a) £178.60 (b) £145.50
7. £38.25
8. (a) 1094.40 euros (b) £350

Answers to Chapter 16 (page 204)

1. (a) 0.839 (b) 3.732 (c) 0.441
2. (a) 10.1 cm (b) 17.0 mm (c) 6.1 cm 3. 26.3 m
4. (a) 31° (b) 73° (c) 51.5°
5. (a) 21.8° (b) 39.1° (c) 36.2° 6. 32.2°

Answers to Chapter 17 (page 213)

1. (a) 7 (b) $C = 7 \times G$ 2. $S = 8 \times N$
3. (a) 3 (b) $M = 3T + 2$ 4. $C = 4N + 3$

Answers to Chapter 18 (page 217)

1.
2. (a) $\frac{1}{12}$ (b) $\frac{1}{2}$ (c) $\frac{11}{12}$ (d) $\frac{1}{4}$ (e) 0 (f) 1
3. (a) $\frac{6}{24}$ ($\frac{1}{4}$) (b) $\frac{2}{24}$ ($\frac{1}{12}$) (c) $\frac{1}{2}$
4. (a) $\frac{3}{10}$ (b) blue – 14, pink – 6