

Answer Key | Lower Secondary Stage (6-8)

1st Semester | 2023-2024

Subject: Math

Chapter: 12

Objectives: To review the answers of chapter 12.

Student book

Check In

a mm, cm, m, km b g, kg, t c ml, l

Exercise 12A

- 1 a 310m b 2 days c 68l d 4.3km
e 700kg f 5 hours g 50cm h 16 000 ml
i 800g

2

		1	5	6
			6	
	2	1	7	0
		3		
3	3	7	5	
	2			
	5			

- 3 a 30 000 cm² b 1 700 000 m²
c 2 600 000 cm³ d 99 m²
e 6 m²

Exercise 12B

- 1 a 3:4 b 7:5 c 2:8:5 d 1:2
e 4:1 f 2:7:9 g 1:3 h 7:10:4
- 2 a 3:6:7 b 5:5:6 c 1:1:1
- 3 18:27, 2:3
22:77, 200:700
34:51, 4:6
95:38, 15:6
2.1:4.2:7, 12:24:40
- 4 Right-angled
- 5 He has not fully simplified. The answer should be 1:2:15
- 6 a 1:14 b 7:2 c 10:13:7
d 70:41 e 3:4:1
- 7 a 1:20 b 11:1 c 3:5:1
d 24:45:40 e 2:3:1

Exercise 12C

- 1 a 5 kg bag b no, units are not equal
c 5000g d 1:50
- 2 a 1:6 b 64:15
- 3 a 110:57 b 10:1 c 13:18 d 1:10
e 1200:311 f 15:2 g 7:22 h 5:36
- 4 a 60:13 b 7:4 c 8:15 d 49:50 e 2:1
- 5 All are incorrect, correct working is:
a 3g:3000g divide by 3 1:1000
b 17cm:85cm divide by 17 1:5
c 1000cm:70cm divide by 10 100:7
d 150ml:50ml divide by 50 3:1
- 6 a 2:1 b 1:4 c 2:25 d 10:3

Exercise 12D

- 1 a Ria 2, Faith 3 b 6
- 2 a 20, 5 and 35 nuts b 20, 50 and 30 ml
c 40m, 10m and 25m d 0.2m, 1.4m and 0.2m
e \$1.25, \$17.50 and \$6.25 f \$16, \$10 and \$28
g \$8, \$16 and \$76 h 585kg, 310kg and 105kg
- 3 a segments: 4cm, 2cm, 6cm
b segments: 1.6cm, 3.2cm, 2.4cm
- 4 a 90g, 510g, 300g b \$1.75, \$1.75 and \$21
c 975g, 150g and 375g

- 5 36°, 60° and 84°
6 24°, 144°, 72° and 120°
7 a 6 and 9 b 5 and 10

Investigation

12, 24, 36 and 48 are all 1.75 times as big when the digits are reversed. It is not possible to find a two-digit number that is 1.5 times as big.

Exercise 12

- 1 a 2:1 b 20:3 c 1:12 d 39:10
e 1:80 f 9:200 000
- 2 a 1:10:100 b 9:10 c 5:1:3 d 1:25:3
e 23:7 f 7:5:9
- 3 a 18 cm; 12 cm b 180 g; 150 g; 90 g
c 600 ml; 1200 ml; 900 ml d 24 mins; 56 mins; 40 mins
- 4 600
- 5 a $\frac{1}{2}$ b 31.25%
- 6 250 ml pineapple juice, 150 ml orange juice, 200 ml mango
- 7 Paint B
- 8 a 2750 ml b 8
- 9 a i False; b He hits 11.5 times as many serves in as he hits out
ii definitely true
iii False; b For every 2 of his serves that were out, 23 were in
iv false; b $\frac{2}{25}$ of his shots are served out
v could be true

Summary

Check out

- 1 a 4:3 b 5:4 c 15:1
- 2 a 2:3 b 2:5 c 8:3:11 d 8:3:7
e 9:2
- 3 a \$32, \$8 and \$40 b \$50 and \$30
c \$8 and \$72 d \$32, \$28 and \$20
e \$16, \$16 and \$48 f \$12, \$20 and \$48
- 4 Dmitry has 65.2%. Tamar has 65%. So Dmitry has greater proportion of bags.

Homework book

12A

- 1 a 58 b 96 c 4 d 9
e 700 f 2600 g 7.8 h 350000
i 2880
- 2 11
- 3 a 20000 b 5000000 c 5700000 d 5200000
e 9100 f 43 g 0.46 h 7
i 32

12B-12C

- 1 a 9:14 b 7:6 c 2:3 d 2:5
e 7:1 f 3:2 g 2:5 h 6:7
i 2:3:4 j 5:2:1 k 8:3:5 l 8:1:5
- 2 a 3:20 b 4:25 c 70:13 d 23:42
e 6:3:7 f 1:8:3 g 3:2:10 h 11:16:5
- 3 a 1:12 b 24:1 c 24:5 d 6:5
e 16:3:5 f 6:4:3
- 4 a The 5kg bag b 10:1
- 5 a 5:13 b 14:1 c 1:4 d 6:1
e 25:3 f 13:4 g 4:1 h 80:11
i 3:2

- 6 a 1:10000 b 130:27
c 6000:1 d 50000:1
e 56:1

12D

- 1 a \$80, \$40 b 300cm, 450cm
c 1.14kg, 2.28kg d 28 minutes, 20 minutes
- 2 a 108 minutes, 12 minutes b 4 days, 10 days
c 350ml, 250ml d 3m, 4.5m
- 3 a \$17, \$34, \$51 b 27kg, 45kg, 18kg
c 5.6m, 11.2m, 39.2m d 200g, 250g, 300g
- 4 100°, 60°, 20°
- 5 a Isosceles b 1:1:1
- 6 102 and 126