National 3 - Revision for Shape, Space & Measures

You may use a calculator

Time

- 1. Convert the following times to 24 hour time:
 - **a** 6.50 am
- **b** 8.15 pm
- **c** 10.30 pm
- 2. Convert the following times to 12 hour time:
 - **a** 1425

b 0840

- **c** 2345
- 3. Bob got on a train at 8.15am and arrived at 11.05am.

How long did the journey take?

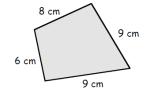
4. An aeroplane took off at 1142 and arrived at 1837.

How long was the flight?

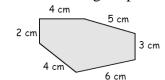
Perimeter

5. Calculate the perimeter of each of the following shapes:-

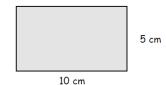
a



b



c



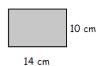
Area

6. Use your formula to calculate the areas of each of the following:-

a



b





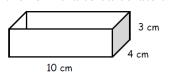
d



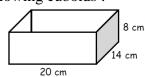
Volume

7. Use the formula to calculate the volume of the following cuboids:-

9



b

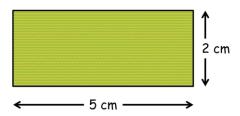


Scale

8. A field has been drawn using a scale of 1 cm = 7m.

The diagram is shown.

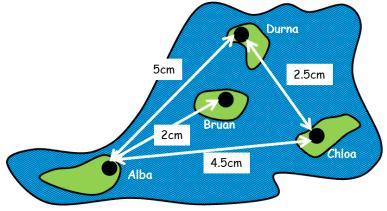
- a Calculate the real length of the field.
- **b** Calculate the real width of the width.



9. The map shows a group of islands drawn using a scale of 1 cm = 10 km.

Calculate the distance from :-

- **a** Alba to Bruan
- **b** Durna to Chloa
- c Durna to Alba
- **d** Chloa to Alba



10. Draw the path through the maze following these instructions:-

Go North 4 boxes

Go East 2 boxes

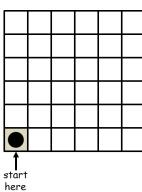
Go South 3 boxes

Go East 3 boxes

Go North 2 boxes

Go West 1 box

Go North 2 boxes and then step out of the maze



Sequences

1. No. of spiders (S) 2 4 5 1 3 6 No. of legs (L) 8

Complete the table showing the number of wheels. 2.

No. of trucks (T)	1	2	3	4	5	6
No. of wheels (W)	6			ì		

3. Complete the table showing the number of legs.

No. of starfish (S)	1	2	3	4	5	6
No. of legs (L)	5					

Answers

Time

- 1. a 0650
- **b** 2015

c 2230

- 2.25pm 2. a
- 8.40am b

c 11.45pm

- 3. 2 hours 50 minutes
- **4.** An aeroplane took off at 1142 and arrived at 1837. 6 hours 55 minutes

Perimeter

5. a 32 cm

b 24 cm

c 30 cm

<u>Area</u>

- **6. a** 30 cm² **b** 140 cm²
- c 53 cm²
- **d** 81 cm²

Volume

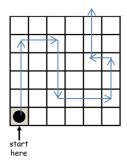
7. **a** 120 cm^3

b 2240 cm^3

Scale

- **8. a** 35 m
 - **b** 14 m.
- **9. a** 20 km
 - **b** 25 km
 - **c** 50 km
 - **d** 45 km

10.



Sequences

- **1.** 16, 24, 32, 40, 48
- **2.** 12, 18, 24, 30, 36
- **3.** 10, 15, 20, 25, 30