2.10-2 Measures and Units: Practice Set 2: 30-minute Pack

GL ASSESSMENT GL · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A cyclist travels 42 km at an average speed of 24 km/h. Calculate how long the journey takes, giving your answer in hours and minutes.

(2)

---

2 A jug contains 3.6 litres of orange squash. Calculate how many 300 ml cups can be completely filled from the jug.

- ☐ A) 10
- ☐ B) 11
- ☐ C) 12
- ☐ D) 14
- ☐ E) 36

---

3 A suitcase has a total mass of 18.5 kg. The clothes inside have a mass of 4300 g. Calculate the mass of the empty suitcase. Give your answer in kilograms.

(3)

© Revision Library | revisionlibrary.co.uk

4 Overnight, the temperature was -3°C. By midday it had risen to 9°C. Calculate the rise in temperature.

- [ ] A) 9°C
- [ ] B) 6°C
- [ ] C) -12°C
- [ ] D) 3°C
- [ ] E) 12°C

---

5 A recipe uses 250 g of butter for every 4 people it serves. Calculate how many grams of butter are needed to serve 10 people.

- [ ] A) 650 g
- [ ] B) 625 g
- [ ] C) 500 g
- [ ] D) 1000 g
- [ ] E) 600 g

---

6 A train travels 96 km in 1 hour 12 minutes. Calculate its average speed in km/h.

- [ ] A) 96 km/h
- [ ] B) 84 km/h
- [ ] C) 72 km/h
- [ ] D) 76.8 km/h
- [ ] E) 80 km/h

---

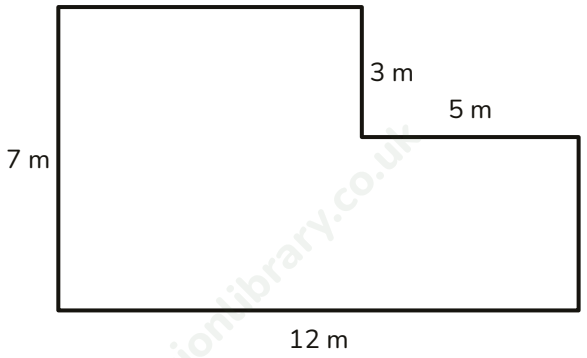
7 Which of these is equal to 2.5 tonnes? (1 tonne = 1000 kg)

- [ ] A) 25000 kg
- [ ] B) 250 kg
- [ ] C) 25 kg
- [ ] D) 2500 kg
- [ ] E) 250000 kg

© Revision Library | revisionlibrary.co.uk

8 The diagram shows an L-shaped patio (not drawn to scale). The bottom edge is 12 m long and the left-hand edge is 7 m long. A rectangular section measuring 5 m by 3 m has been removed from the top right-hand corner, creating the notch in the shape. Calculate the perimeter of the patio.

Diagram NOT accurately drawn



(4)

---

9 Siobhan is a delivery driver. In the morning she drives from a depot in Preston to a warehouse in Bolton, a distance of 36 km, at an average speed of 48 km/h. She then drives from Bolton to a second warehouse in Manchester, a distance of 100 km, at an average speed of 80 km/h.

(a) Calculate the time taken for each part of Siobhan's journey. **(2)**

.....

(b) Calculate the total time for the whole journey, in hours. **(1)**

.....

(c) Calculate Siobhan's average speed for the whole journey, in km/h. **(2)**

.....

© Revision Library | revisionlibrary.co.uk

10 A ceiling in a village hall measures 5.4 m by 3.6 m. It has two square skylights, each with sides of 0.4 m, which will not be painted.

(a) Calculate the area of the ceiling that needs to be painted, in m^2. **(4)**

(b) One tin of paint covers 4 m² and costs £9.20. Calculate the total cost of the tins of paint needed to cover the ceiling. **(2)**

© Revision Library | revisionlibrary.co.uk

11 Mrs Adeyemi needs to arrive at a wedding in Chester by 15:15. The distance from her home to Chester is 96 km. She plans to drive at an average speed of 64 km/h and will take one 20 minute stop for fuel on the way.

(a) Calculate the driving time for the journey, not including the stop. Give your answer in hours and minutes. **(2)**

.....

(b) Calculate the total time needed for the whole journey, including the stop. **(2)**

.....

(c) Find the latest time Mrs Adeyemi must leave home in order to arrive by 15:15. **(2)**

.....

12 Convert 20 km into metres.

- ☐ A) 200000 m
- ☐ B) 20000 m
- ☐ C) 200 m
- ☐ D) 20 m
- ☐ E) 2000 m

© Revision Library | revisionlibrary.co.uk

Mark scheme · 2.10-2 Measures and Units: Practice Set 2: 30-minute Pack

Question 1

Time = distance / speed = 42 / 24 (oe) **M1**

1 hour 45 minutes oe (accept 1.75 hours) **A1**

Answer: 1 hour 45 minutes

Question 2

12 cups cao **B1**

Answer: 12 cups

Question 3

Converts 18.5 kg to 18500 g **M1**

Subtracts 4300 from their 18500 (oe) **M1**

14.2 kg cao **A1**

Answer: 14.2 kg

Question 4

E) 12°C cao **B1**

Answer: 12°C

Question 5

B) 625 g cao **B1**

Answer: 625 g

Question 6

E) 80 km/h cao **B1**

Answer: 80 km/h

Question 7

D) 2500 kg cao **B1**

Answer: 2500 kg

Question 8

Finds the missing horizontal side: 12 - 5 = 7 m **M1**

Finds the missing vertical side: 7 - 3 = 4 m **M1**

Adds all six sides of the shape (oe, or uses 2 x (12 + 7)) **M1**

38 m cao **A1**

Answer: 38 m

Question 9

(a) 45 minutes for Preston to Bolton **B1**

(a) 1 hour 15 minutes for Bolton to Manchester **B1**

(a) Answer: Preston to Bolton: 45 minutes; Bolton to Manchester: 1 hour 15 minutes

(b) Adds the two times correctly, ft from part a (e.g. 45 + 75 = 120 minutes) **M1**

(b) Answer: 2 hours

(c) Average speed = total distance / total time, ft (e.g. (36 + 100) / 2) **M1**

(c) 68 km/h cao **A1**

(c) Answer: 68 km/h

Question 10

(a) Ceiling area = 5.4 x 3.6 = 19.44 (m^2) **M1**

(a) Area of one skylight = 0.4 x 0.4 = 0.16 (m^2) **M1**

(a) Subtracts the area of both skylights from the ceiling area (oe) **M1**

(a) 19.12 m² cao **A1**

(a) Answer: 19.12 m^2

(b) 19.12 / 4 = 4.78, rounds up to 5 whole tins, ft from part a **M1**

(b) £46.00 cao (ft) **A1**

(b) Answer: £46.00 (5 tins needed)

Question 11

(a) 96 / 64 (oe) **M1**

(a) 1 hour 30 minutes oe **A1**

(a) Answer: 1 hour 30 minutes

(b) Adds 20 minutes to their time from part a, ft **M1**

(b) 1 hour 50 minutes cao (ft) **A1**

(b) Answer: 1 hour 50 minutes

(c) Subtracts their total time from part b from 15:15, ft **M1**

(c) 13:25 cao (ft) **A1**

(c) Answer: 13:25

Question 12

correct option B (20000 m) cao **B1**

Answer: B) 20000 m

© Revision Library | revisionlibrary.co.uk