Year 6 maths: Metric conversions and composite shapes (Hard)

Maths · Measurement · Level: Hard

Student: _____ Date: _____

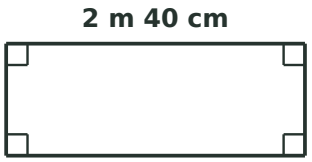
Instructions

- There are 10 questions. Read each one carefully.
- Write your answers on this paper. Use the space under a question to work it out.
- A grown-up can read a question aloud — that's fine.
- The answers are at the end. Check them together when you have finished.

Questions

1. A rectangle is 2 m 40 cm long and 90 cm wide. What is its area in square centimetres?

Answer: _____ cm²

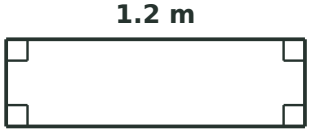


Not to scale

Working:

2. A rectangle is 1.2 m long and 35 cm wide. What is its perimeter in centimetres?

Answer: _____ cm



Not to scale

Working:

3. The oval and its surrounds cover 7364 m². By how many square metres is that short of one hectare?

Answer: _____ m²

Working:

4. A tank has 6.38 L of water. 2475 mL more is added. How many litres are in the tank now?

Answer: _____ L

Working:

5. A ream of 500 sheets of paper is 5.5 cm thick. How thick is one sheet in millimetres? Write a decimal.

Answer: _____ mm

Working:

6. A hall floor is 12.5 m long and 8 m wide. Square tiles 50 cm by 50 cm cover it with no gaps. How many tiles are needed? Write a whole number.

Answer: _____ tiles

Working:

7. A tank has a mass of 12.6 kg when empty. It is filled with 8500 mL of water (1 mL of water has a mass of 1 g). Total mass in kg? Write a decimal.

Answer: _____ kg

Working:

8. A hollow pipe has an inner diameter of 2.8 cm. Its wall is 3.5 mm thick all round. What is its outer diameter in millimetres?

Answer: _____ mm

Working:

9. Which is the longest length?

Circle one answer.

○ **A** 1250 m ○ **B** 119 000 cm ○ **C** 1.2 km ○ **D** 1 150 000 mm

10. A water trough holds 1.2 kL. A bucket holds 15 L. How many full buckets fill the trough? Write a whole number.

Answer: _____ buckets

Working:

Answer key

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1. 21 600 cm²

2 m 40 cm is 240 cm. 240 × 90 = 21 600 cm².

2. 310 cm

1.2 m is 120 cm. 120 + 35 + 120 + 35 = 310 cm.

3. 2636 m²

A hectare is 10 000 m². 10 000 − 7364 = 2636 m².

4. 8.855 L

2475 mL is 2.475 L. 6.38 + 2.475 = 8.855 L.

5. 0.11 mm

5.5 cm = 55 mm. 55 ÷ 500 = 0.11 mm.

6. 400 tiles

Floor 12.5 × 8 = 100 m². One tile is 0.5 × 0.5 = 0.25 m². 100 ÷ 0.25 = 400 tiles.

7. 21.1 kg

8500 mL of water is 8500 g = 8.5 kg. 12.6 + 8.5 = 21.1 kg.

8. 35 mm

2.8 cm = 28 mm. Two walls: 2 × 3.5 = 7 mm. 28 + 7 = 35 mm.

9. A — 1250 m

1.2 km = 1200 m. 119 000 cm = 1190 m. 1 150 000 mm = 1150 m. So 1250 m is the longest.

10. 80 buckets

1.2 kL = 1200 L. 1200 ÷ 15 = 80 buckets.