Metric measurement - topic test

12 questions | 19 marks | 30 minutes

Units, labelled and partly labelled scales, measurements and instrument choices.

Equivalent correct methods earn the corresponding marks.

1. Name a useful metric unit for the length of a pencil. [1 mark]

Both are suitable small length units.

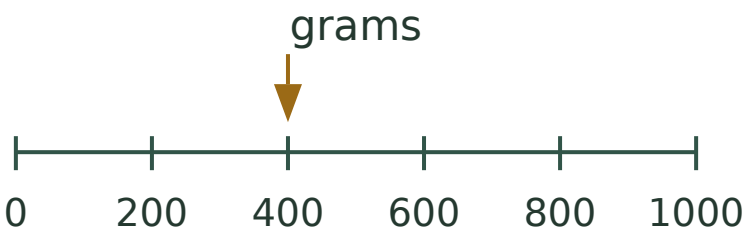
Answer: Centimetres or millimetres.

2. Which instrument measures temperature? [1 mark]

Temperature is measured in degrees Celsius on a thermometer.

Answer: A thermometer.

3. Read the pointer on the mass scale. [2 marks]



Each of five gaps is 200 g.

The pointer is two gaps from 0: $2 \times 200 = 400$ g.

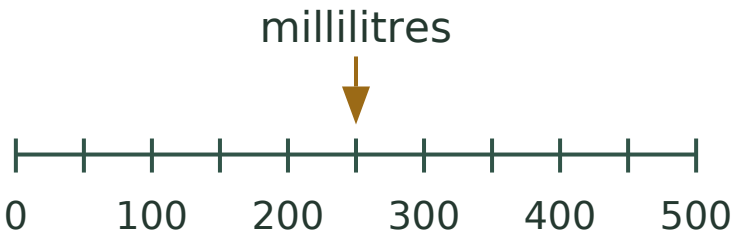
Answer: 400 g

4. Four equal gaps span 0 to 80 mL. Find one gap's value. [1 mark]

$80 \div 4 = 20$.

Answer: 20 mL

5. Read the pointer on this liquid scale. [2 marks]

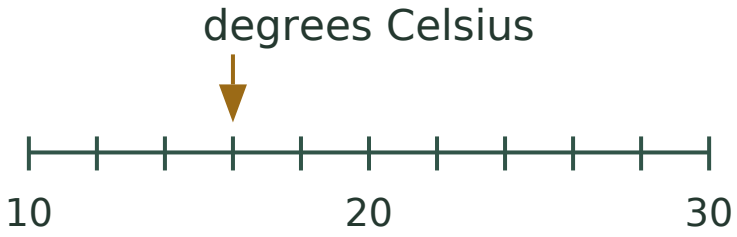


The small gap is 50 mL.

The pointer is one gap beyond 200: $200 + 50 = 250$ mL.

Answer: 250 mL

6. Read this temperature. [2 marks]



Ten gaps span 20 degrees, so each is 2 °C.

The pointer is three gaps after 10: $10 + 6 = 16$ °C.

Answer: 16 °C

7. A strip starts at 4 cm and ends at 13 cm on a ruler. Find its length. [1 mark]

$13 - 4 = 9$.

Answer: 9 cm

8. A scale shows 20 and 60 mL with eight equal gaps. What is the value of each gap? [2 marks]

$60 - 20 = 40$; $40 \div 8 = 5$.

Answer: 5 mL

9. A thermometer rises from 18 °C to 25 °C. By how many degrees does it rise? [1 mark]

$25 - 18 = 7$.

Answer: 7 °C

10. A small packet is labelled 500 g. Use $1000\,\text{g} = 1\,\text{kg}$. How many such packets have a total mass of 1 kg? [1 mark]

$500 + 500 = 1000$ g.

Answer: 2 packets.

11. Two rulers measure the same small craft part. A has 1 mm gaps; B has 1 cm gaps. Which gives finer detail, and why? [2 marks]

There are ten millimetres in one centimetre.

The smaller gaps distinguish closer lengths.

Answer: A, because 1 mm gaps are smaller.

12. A tank needs 2 L of water. Use $1\,\text{L} = 1000\,\text{mL}$. You have a 500 mL jug. How many full jugs are needed? Explain one way to avoid a counting mistake. [3 marks]

$2\,\text{L} = 2000\,\text{mL}$.

$2000 \div 500 = 4$.

A tally for each full pour prevents losing count.

Answer: 4 full jugs; record each completed pour.