

Name \_\_\_\_\_

Date \_\_\_\_\_

## Maths vocabulary — answers

49 tasks in five styles, covering every key word in Unit 1.

### A · Unscramble the term — Rearrange the letters to make the term that matches the definition.

**1 repiremet**

The distance all the way round a shape.

*Example:  $2(l + w)$  for a rectangle.*

**Answer: perimeter**

The word is **perimeter** — The distance all the way round a shape.

**2 eraa**

The amount of surface a shape covers.

*Example:  $l \times w$  for a rectangle.*

**Answer: area**

The word is **area** — The amount of surface a shape covers.

**3 movule**

The amount of space a solid takes up.

*Example:  $l \times w \times h$  for a cuboid.*

**Answer: volume**

The word is **volume** — The amount of space a solid takes up.

**4 eehtcra**

An area of 10 000 m<sup>2</sup>; a square 100 m by 100 m.

*Example: A farm of 40 ha.*

**Answer: hectare**

The word is **hectare** — An area of 10 000 m<sup>2</sup>; a square 100 m by 100 m.

**5 iucobd**

A solid with six rectangular faces.

*Example: A cereal box.*

**Answer: cuboid**

The word is **cuboid** — A solid with six rectangular faces.

**6 ten**

A solid opened out flat.

*Example: Six rectangles for a cuboid.*

**Answer: net**

The word is **net** — A solid opened out flat.

**7 eevtrx**

A corner where edges meet.

*Example: A cuboid has 8.*

**Answer: vertex**

The word is **vertex** — A corner where edges meet.

**8 tocgnurne**

Same shape and same size; corresponding sides and angles equal.

*Example: Two 6 cm by 4 cm rectangles.*

**Answer: congruent**

The word is **congruent** — Same shape and same size; corresponding sides and angles equal.

**9 tacapicy**

How much a container holds.

*Example: 1 litre = 1000 cm<sup>3</sup>.*

**Answer: capacity**

The word is **capacity** — How much a container holds.

**10 lrtaigne**

A three-sided polygon.

*Example: Area =  $\frac{1}{2} \times \text{base} \times \text{height}$ .*

**Answer: triangle**

The word is **triangle** — A three-sided polygon.

**B · Fill in the gaps — Use a word from the box to complete each sentence.**

- 11** The distance all the way round a shape is its \_\_\_\_\_.

**Word box:** □

**Answer: perimeter**

Measured in cm, not cm<sup>2</sup>.

- 12** The amount of surface a shape covers is its \_\_\_\_\_.

**Word box:** □

**Answer: area**

Measured in cm<sup>2</sup>.

- 13** The amount of space a solid takes up is its \_\_\_\_\_.

**Word box:** □

**Answer: volume**

Measured in cm<sup>3</sup>.

- 14** The total area of all the faces of a solid is its \_\_\_\_\_.

**Word box:** □

**Answer: surface area**

Measured in cm<sup>2</sup>, even though the solid is 3D.

- 15** An area of 10 000 square metres is one \_\_\_\_\_.

**Word box:** □

**Answer: hectare**

A square 100 m by 100 m.

- 16 A shape made from rectangles joined together is a \_\_\_\_\_.

**Word box:** □

**Answer: compound shape**

Split it up, or subtract from the whole.

- 17 Two shapes with equal corresponding sides and angles are \_\_\_\_\_.

**Word box:** □

**Answer: congruent**

Same shape and same size.

- 18 The distance from the base of a triangle to the opposite vertex, at right angles, is the \_\_\_\_\_.

**Word box:** □

**Answer: perpendicular height**

Not the sloping side.

- 19 A solid opened out flat is called a \_\_\_\_\_.

**Word box:** □

**Answer: net**

It shows all six faces of a cuboid at once.

- 20 How much a container holds is its \_\_\_\_\_.

**Word box:** □

**Answer: capacity**

1 litre = 1000 cm<sup>3</sup>.

**C · Choose the correct ending — Pick the reason that correctly finishes each sentence.**

- 21 Area is measured in square units because ...

- ☐ areas are square
- ☐ it is a length multiplied by a length
- ☐ the shapes are square

**Answer: it is a length multiplied by a length**

Two lengths give cm<sup>2</sup>; three give cm<sup>3</sup>.

- 22 1 m<sup>2</sup> is 10 000 cm<sup>2</sup> and not 100 cm<sup>2</sup> because ...

- ☐ metres are long
- ☐ both sides are multiplied by 100, so the factor is squared
- ☐ of the metric system

**Answer: both sides are multiplied by 100, so the factor is squared**

100 × 100 = 10 000.

- 23 The area of a triangle is half the base times the height because ...

- ☐ triangles are small
- ☐ two copies of it make a parallelogram of base × height
- ☐ of the three sides

**Answer: two copies of it make a parallelogram of base × height**

Turn a second copy upside down and fit it alongside.

**24** The height in the triangle formula must be perpendicular because ...

- ☐ it looks better
- ☐ a sloping side is longer and would give too big an answer
- ☐ it is easier to measure

**Answer: a sloping side is longer and would give too big an answer**

The right-angle mark on the diagram is telling you which one to use.

**25** Cutting a rectangular corner out of a rectangle leaves the perimeter unchanged because ...

- ☐ perimeters never change
- ☐ the two new edges are as long as the two they replaced
- ☐ the area is smaller

**Answer: the two new edges are as long as the two they replaced**

The area falls, but the walk round the outside is the same length.

**26** A net helps you find surface area because ...

- ☐ it is colourful
- ☐ it lays every face out flat, so none is missed
- ☐ it shows the volume

**Answer: it lays every face out flat, so none is missed**

Hidden faces are what people forget.

**27** Doubling every edge of a cube multiplies its volume by 8 because ...

- ☐ 8 is a cube number
- ☐ all three of the lengths in the product have doubled
- ☐ cubes are special

**Answer: all three of the lengths in the product have doubled**

$2 \times 2 \times 2 = 8$ . For an area it would have been  $2 \times 2 = 4$ .

### D · Match the definition — Type the term that matches each definition.

**28** Which term means: *The distance all the way round a shape.*

**Answer: perimeter**

**perimeter** —  $2(l + w)$  for a rectangle.

**29** Which term means: *The amount of surface a shape covers.*

**Answer: area**

**area** —  $l \times w$  for a rectangle.

**30** Which term means: *The amount of space a solid takes up.*

**Answer: volume**

**volume** —  $l \times w \times h$  for a cuboid.

**31** Which term means: *The total area of all the faces of a solid.*

**Answer: surface area**

**surface area** —  $2(lw + lh + wh)$  for a cuboid.

**32** Which term means: *The area of a square 1 cm by 1 cm.*

**Answer: square centimetre**

**square centimetre** — Written  $\text{cm}^2$ .

- 33** Which term means: *The volume of a cube 1 cm on each edge.*  
**Answer: cubic centimetre**  
**cubic centimetre** — Written  $\text{cm}^3$ .
- 34** Which term means: *An area of 10 000  $\text{m}^2$ ; a square 100 m by 100 m.*  
**Answer: hectare**  
**hectare** — A farm of 40 ha.
- 35** Which term means: *A shape made from simpler shapes joined together.*  
**Answer: compound shape**  
**compound shape** — An L-shape from two rectangles.
- 36** Which term means: *Same shape and same size; corresponding sides and angles equal.*  
**Answer: congruent**  
**congruent** — Two 6 cm by 4 cm rectangles.
- 37** Which term means: *The distance from the base to the opposite vertex, at right angles.*  
**Answer: perpendicular height**  
**perpendicular height** — The dashed line in a triangle.
- 38** Which term means: *A solid with six rectangular faces.*  
**Answer: cuboid**  
**cuboid** — A cereal box.
- 39** Which term means: *A cuboid with all twelve edges equal.*  
**Answer: cube**  
**cube** — A die.
- 40** Which term means: *One flat surface of a solid.*  
**Answer: face**  
**face** — A cuboid has 6.
- 41** Which term means: *The line where two faces meet.*  
**Answer: edge**  
**edge** — A cuboid has 12.
- 42** Which term means: *A corner where edges meet.*  
**Answer: vertex**  
**vertex** — A cuboid has 8.
- 43** Which term means: *A solid opened out flat.*  
**Answer: net**  
**net** — Six rectangles for a cuboid.

**E · Reading measurement questions — What the units and instruction words are telling you.**

**44** A question asks for an answer “in  $\text{cm}^2$ ”. What is it asking for?

- ☐ A length
- ☐ An area
- ☐ A volume
- ☐ A perimeter

**Answer: An area**

The little 2 tells you two lengths were multiplied.

**45** A question asks for an answer “in  $\text{cm}^3$ ”. What is it asking for?

- ☐ A length
- ☐ An area
- ☐ A volume
- ☐ A surface area

**Answer: A volume**

Three lengths multiplied. Surface area, despite belonging to a solid, is still  $\text{cm}^2$ .

**46** A question says “give your answer in hectares”. What must you do at the end?

- ☐ Nothing
- ☐ Divide the number of square metres by 10 000
- ☐ Multiply by 10 000
- ☐ Divide by 100

**Answer: Divide the number of square metres by 10 000**

Work in  $\text{m}^2$  throughout, then convert once, at the last step.

**47** A question says the box is “open-topped”. What changes?

- ☐ Nothing
- ☐ There are five faces, not six
- ☐ The volume is halved
- ☐ It has no base

**Answer: There are five faces, not six**

Find the closed surface area and subtract the missing top.

**48** A question gives a sloping side and a perpendicular height. Which goes in the triangle formula?

- ☐ The sloping side
- ☐ The perpendicular height
- ☐ Either
- ☐ Both

**Answer: The perpendicular height**

The sloping side is there as a distractor. It usually is.

**49** A question says “find the surface area”. Which units?

- ☐  $\text{cm}$
- ☐  $\text{cm}^2$
- ☐  $\text{cm}^3$
- ☐ litres

**Answer:  $\text{cm}^2$**

It is a total of areas, so it is an area.