Write your name, centre number and candidate number in the boxes below.

| Surname | Other names |
|---|---|
| | |

Centre number | | | | | |

Candidate number | | | | |

**STEM** | Exam Builder

# Converting area and volume units

Time allowed: 25 minutes

**Subject code** **0580**

# Mathematics

**Questions from Paper 1, Paper 2 and Paper 4**

**You must have:** a ruler marked in centimetres and millimetres, a protractor, compasses, a pen, an HB pencil and an eraser.
**You may use a calculator.**

Total marks

**/ 20**

## Instructions

- Answer every question in the space provided on this paper.
- Write in black or dark blue ink. Pencil may be used for diagrams and graphs.
- Fill in your name, centre number and candidate number above.
- Show your working: a correct method can earn marks even if the answer is wrong.
- Unless a question says otherwise, give answers that are not exact to 3 significant figures, and angles in degrees to 1 decimal place.

## Information

- This paper has 10 questions worth 20 marks in total.
- The marks for each question or part are shown in brackets, for example [3].

## Advice

- Read every question through once before you write anything.
- Use the marks in brackets to judge how long to spend on each part.
- If you finish early, go back and check your working.

STEM | Exam Builder



Print at 100% (Actual size) so diagrams keep their real measurements.

**1** Change 4.37 litres into cubic centimetres.

..... $cm^3$ [1]

Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **1** | 4370 | **1** | |

**2** **(a)** Change 0.183 metres to centimetres.

..... cm [1]

**(b)** Change 12 800 square millimetres to square centimetres.

..... $cm^2$ [1]

(a) Converting between units (b) Converting between units Click for more variations

| | | | | |
|---|---|---|---|---|
| **2** | **(a)** | 18.3 | **1** | |
| | **(b)** | 128 | **1** | |

**3** **(a)** Change 6.54 kilometres into metres.

..... m [1]

**(b)** Change 7850 $cm^3$ into litres.

..... litres [1]

(a) Converting between units (b) Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **3**(a) | 6540 | **1** | |
| **3**(b) | 7.85[0] | **1** | |

STEM | Exam Builder

**4** **(a)** Change 645 mm into cm.

..... cm [1]

**(b)** Change 4.1 $m^3$ into $cm^3$.

.....$cm^3$ [1]

(a) Converting between units (b) Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **4**(a) | 64.5 | **1** | |
| **4**(b) | 4 100 000 oe | **1** | |

**5** Complete the statements.

3.5 kg = ..... g

1.4 $m^2$ = ..... $cm^2$ [2]

Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **5** | 3500<br>14 000 | **2** | **B1** for each |

**6** Complete each statement.

**(a)** 0.0000047 $m^2$ = ..... $cm^2$.

[1]

**(b)** 8500 $cm^3$ = ..... litres.

[1]

(a) Area and volume units (b) Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **6**(a) | 0.047 | **1** | |
| **6**(b) | 8.5 | **1** | |

STEM | Exam Builder

**7** **(a)** Convert 780 $cm^2$ into $m^2$.

..... $m^2$ [1]

**(b)** Convert 0.037 $m^3$ into $cm^3$.

..... $cm^3$ [1]

(a) Area and volume units (b) Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **7**(a) | 0.078[0] oe | **1** | |
| **7**(b) | 37 000 | **1** | |

**8** Change 64 square metres into square millimetres.
Give your answer in standard form.

*Answer* ..... $mm^2$ [2]

Calculating in standard form Click for more variations

| | | | |
|---|---|---|---|
| **8** | $6.4 \times 10^7$ | 2 | **M1** $64 \times 100^2 \times 10^2$ or 64 000 000 oe |

**9** A lake has an area of 63 800 000 000 square metres.

Write this area in square kilometres, correct to 2 significant figures.

*Answer* ..... $km^2$ [2]

Converting between units Click for more variations

| | | | |
|---|---|---|---|
| **9** | 64 000 or $6.4 \times 10^4$ | **2** | **SC1** for 63800 or $6.38 \times 10^4$ **or** figs 64 or $6.4 \times 10^k$ in answer space. |

STEM | Exam Builder

**10** A water tank in the shape of a cuboid has length 1.5 metres and width 1 metre.
The water in the tank is 60 centimetres deep.

Calculate the number of litres of water in the tank.

..... litres [3]

Volume of cuboids Click for more variations

| | | | |
|---|---|---|---|
| **10** | 900 | **3** | **M2** for $\frac{150\times100\times60}{1000}$ oe<br>or **M1** for $150 \times 100 \times 60$ or $1.5\ [\times 1] \times 0.6$<br>or **B1** for figs 9 |

STEM | Exam Builder