UNIT 12 *Solids*   # CSEC Revision Test
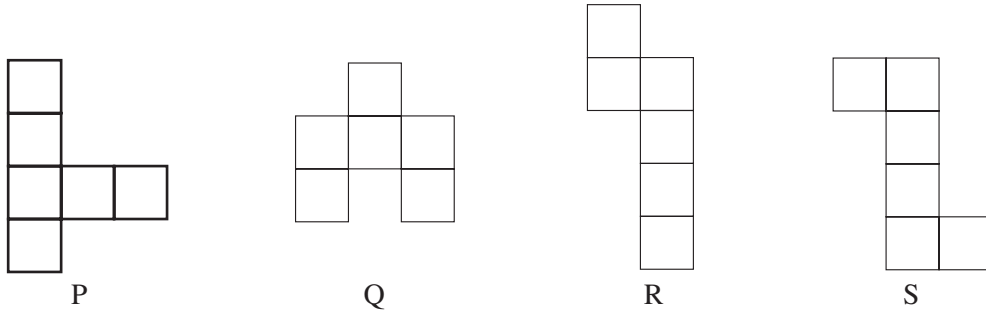
1.

| P | Q | R | S |

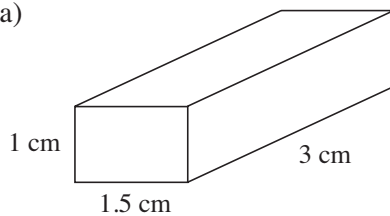Which of these nets can be folded to make a cube?   (*4 marks*)

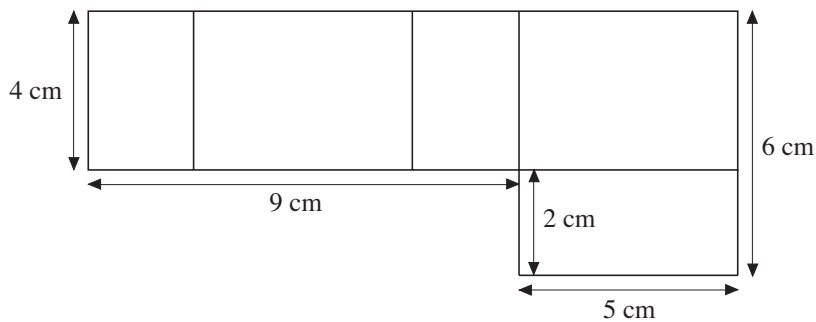2.   Draw an accurate net for the following two shapes:

(a)

1 cm

3 cm

1.5 cm

(b)

3 cm

3 cm

3 cm

3 cm
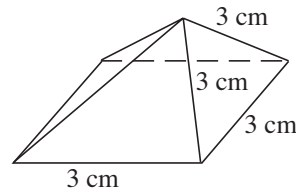
(*4 marks*)

3.   The diagram below is the net of a small open box, with no top face.

4 cm

6 cm

9 cm

2 cm

5 cm

(a)   Find the perimeter of the net.   (*2 marks*)

(b)   Calculate the area of the net.   (*2 marks*)

(c)   Add one more rectangle in a suitable position to change the
diagram above to the net of a closed box.   (*2 marks*)

(d)   Write down the length, width and height of the box (in any order).   (*2 marks*)

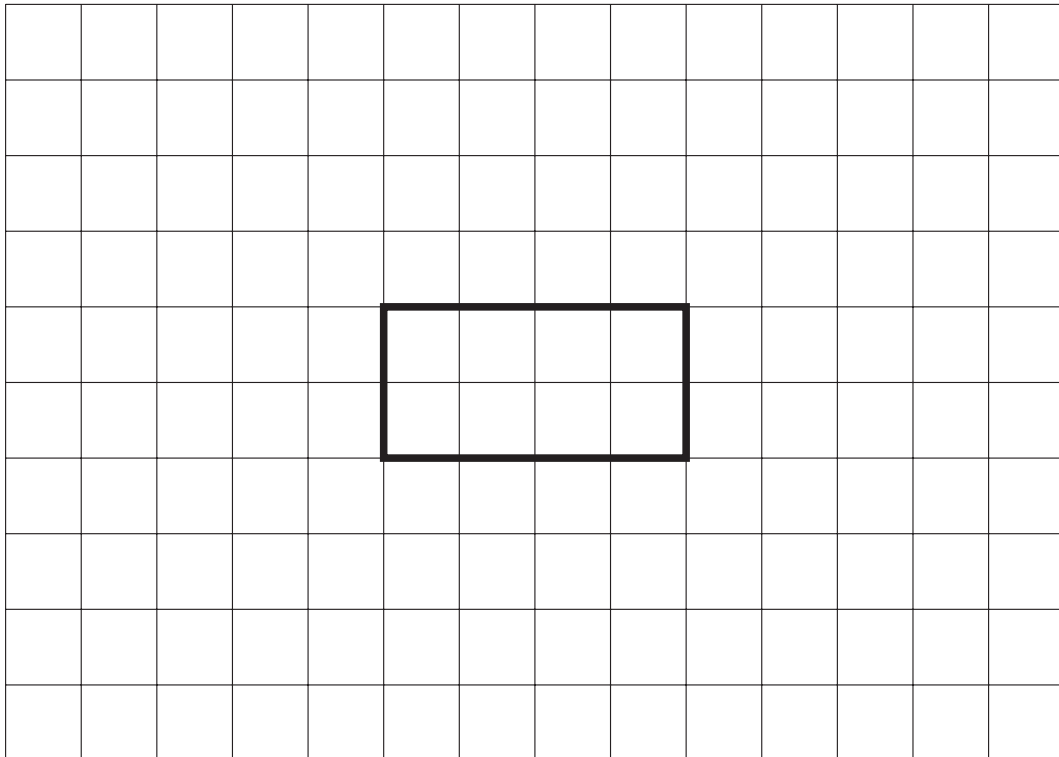(e)   Calculate the volume of the box.   (*2 marks*)

UNIT 12 *Solids*   **CSEC Revision Test**

4.   The diagram shows a cuboid 4 cm by 2 cm by 1 cm.

1 cm

Not to scale

4 cm

2 cm
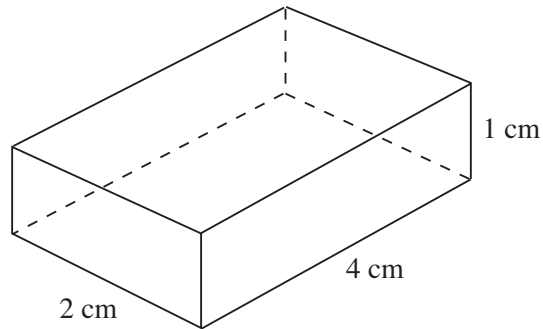
On a copy of the following centimetre grid, complete a net of the cuboid.

Each square on grid represents 1 cm^2

(3 marks)

UNIT 12 *Solids* **CSEC Revision Test**

5.   A cuboid has sides of lengths 4 cm, 6 cm and 8 cm.

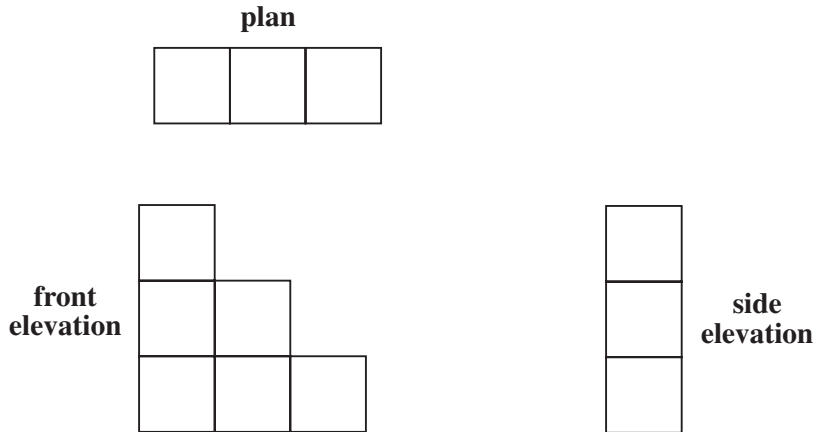Make an accurate 3-D drawing of the cuboid on a grid like the one below.

Each square on grid represents 1 cm^2

(*3 marks*)

UNIT 12 *Solids*   # CSEC Revision Test

6.   Here are the plan, front elevation and side elevation of a 3-D shape.

plan

front elevation

side elevation

(a)   Draw a sketch of the 3D shape.   *(2 marks)*

Here is a sketch of a different 3D shape.

The shape is a cylinder with a cone on top.

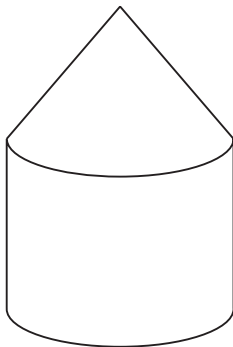Diagram NOT accurately drawn.

(b)   Sketch the front elevation of this 3D shape.   *(2 marks)*
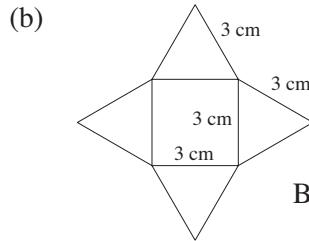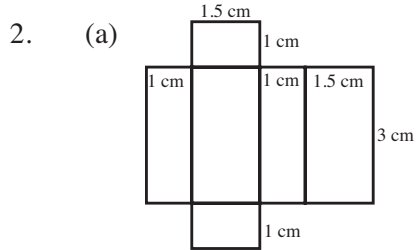
                                                                TOTAL MARKS: 28

UNIT 12 *Solids*

CSEC Revision Test
ANSWERS

1.   S   (–1 for each error)   B4   *(4 marks)*

2.   (a)

1.5 cm
1 cm
1 cm 1 cm 1.5 cm
3 cm
1 cm

(b)

3 cm
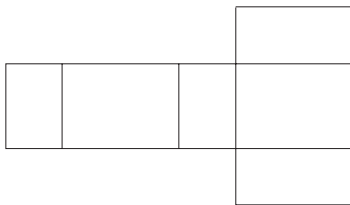3 cm
3 cm
3 cm

B2 B2   *(4 marks)*

3.   (a)   perimeter = 4 + 9 + 2 + 5 + 6 + 14 = 40 cm   M1 A1

(b)   area = $(4 \times 14) \ + \ (2 \times 5) = 66$ M1 A1
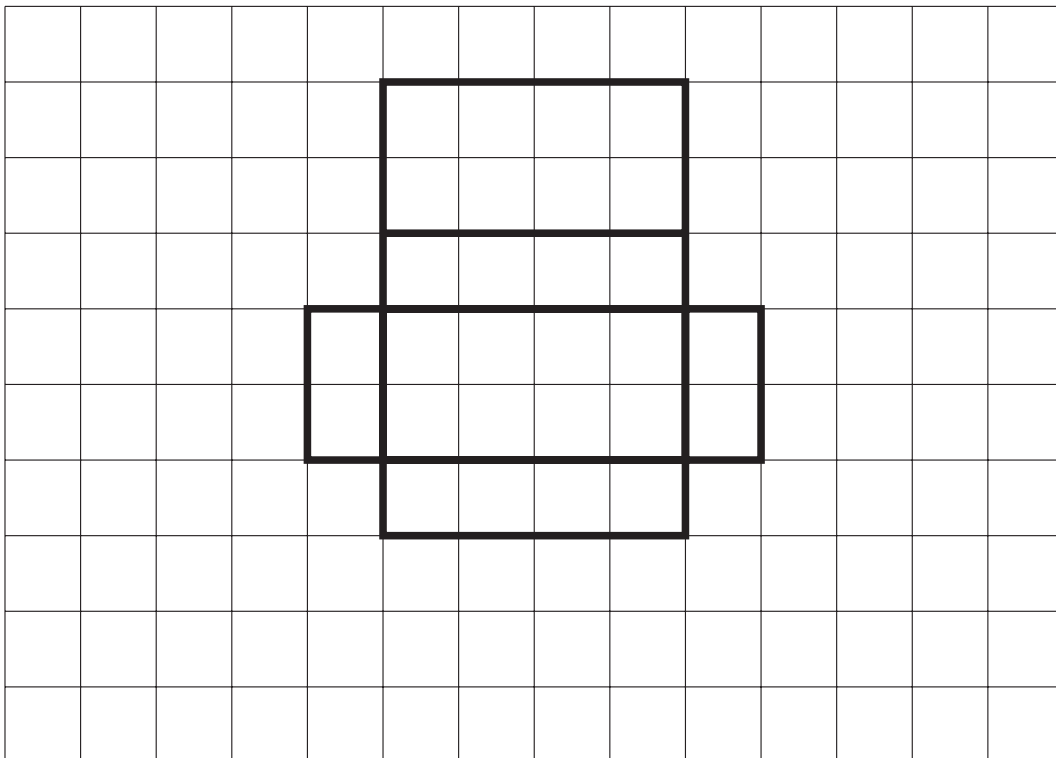
(c)

(or equivalent)

B2

(d)   2 cm, 4 cm, 5 cm   B2

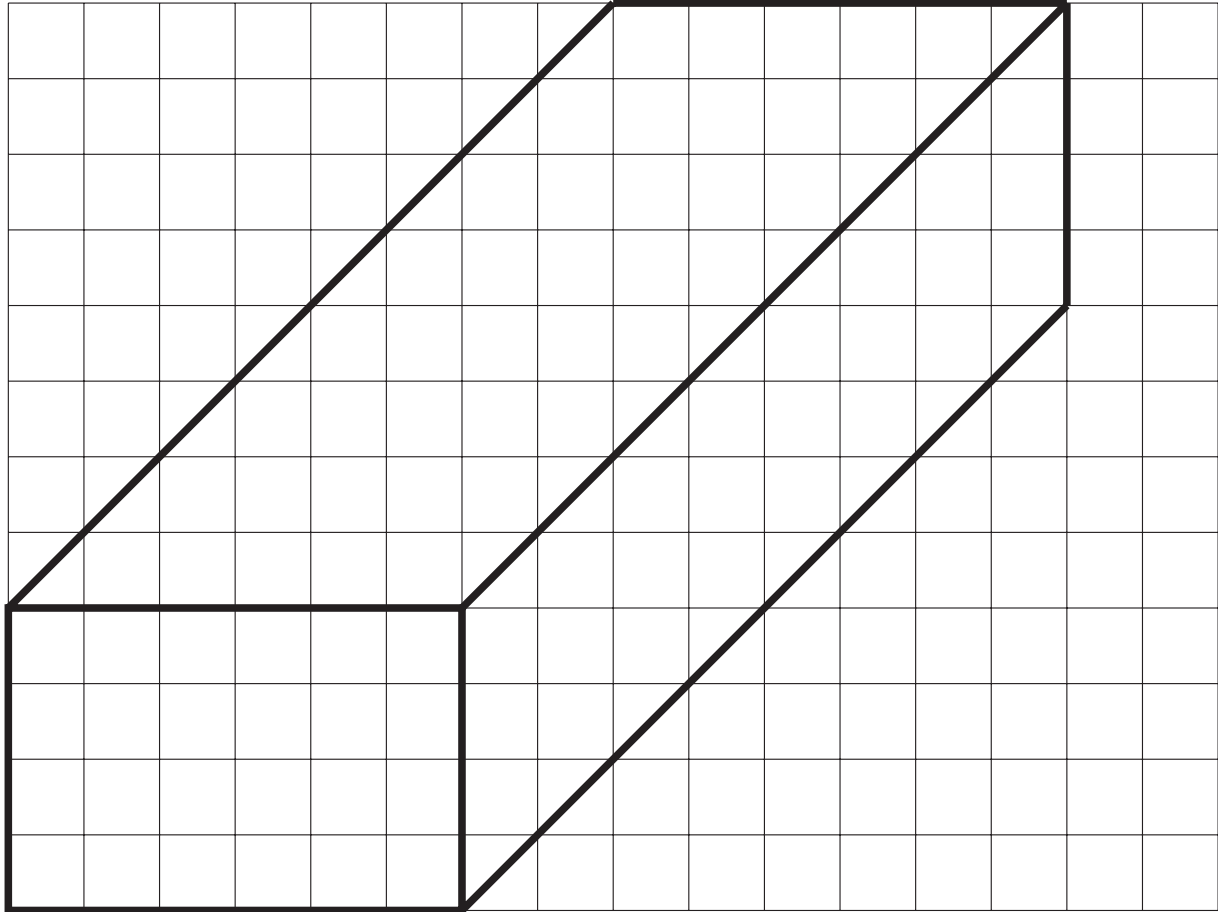(e)   volume = $2 \times 4 \times 5 = 40 \text{ cm}^3$ M1 A1   *(10 marks)*

4.   For example,

(3 marks)

UNIT 12 *Solids*

CSEC Revision Test
ANSWERS

5.

Each square on grid represents 1 cm^2
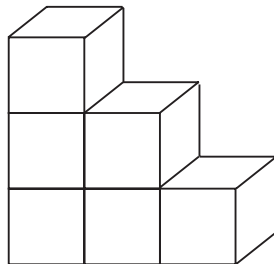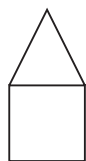
B1 B1 B1   (*3 marks*)

6.   (a)

B2

(b)

B2   (*4 marks*)

(TOTAL MARKS: 28)