

Geometry 1F Assessment

THE ANSWERS

Foundation Level



All questions

Clip	Grade	Title of clip	Question(s)	Marked out of	Score	%
9.....	1.....	Simple Geometric Definitions	1	4	_____	_____
10.....	1.....	Polygons.....	2, 3	5	_____	_____
11.....	1.....	Symmetries	4	6	_____	_____
12.....	1.....	Tessellations and Congruency	5, 6	5	_____	_____
13.....	1.....	Names of Angles ..	7	2	_____	_____
43.....	2.....	Properties of Solids..	8	5	_____	_____
44.....	2.....	Nets	9	3	_____	_____
45.....	2.....	Angles on a Line and at a Point.....	10	4	_____	_____
46.....	2.....	Measuring and Drawing Angles	11	2	_____	_____
47.....	2.....	Drawing a Triangle Using a Protractor	12	3	_____	_____
48.....	2.....	Reflections	13	2	_____	_____
49.....	2.....	Rotations	13	2	_____	_____
50.....	2.....	Translations	13	2	_____	_____
51.....	2.....	Plans and Elevations	14	4	_____	_____
52.....	2.....	Perimeters	15	3	_____	_____
53.....	2.....	Area of a Rectangle.....	16	4	_____	_____
54.....	2.....	Area of a Triangle	17	4	_____	_____
55.....	2.....	Area of a Parallelogram.....	18	2	_____	_____
56.....	2.....	Area of a Trapezium	19	2	_____	_____
112.....	3.....	Metric Conversions.....	20	3	_____	_____
113.....	3.....	Problems on Coordinate Axes.....	21	3	_____	_____
114.....	3.....	Surface Area of a Prism.....	22	6	_____	_____
115.....	3.....	Volume of a Cuboid	23	2	_____	_____
116.....	3.....	Circle Definitions.	24	2	_____	_____

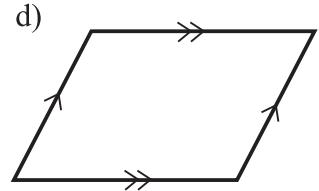
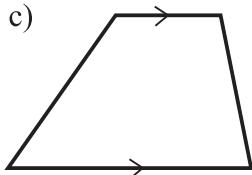
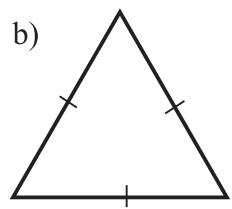
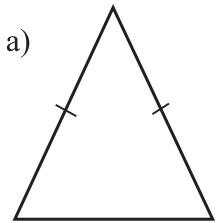
Out of 80

TOTAL
SCORE _____

Final
Percentage

% _____

1) Name each of the following shapes:



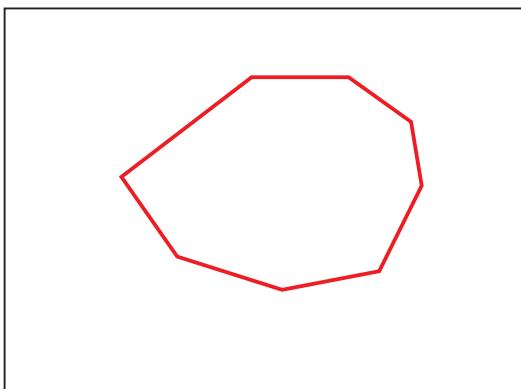
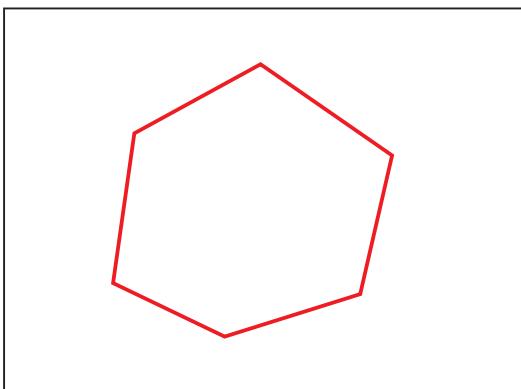
Isosceles triangle 1

Equilateral triangle 1

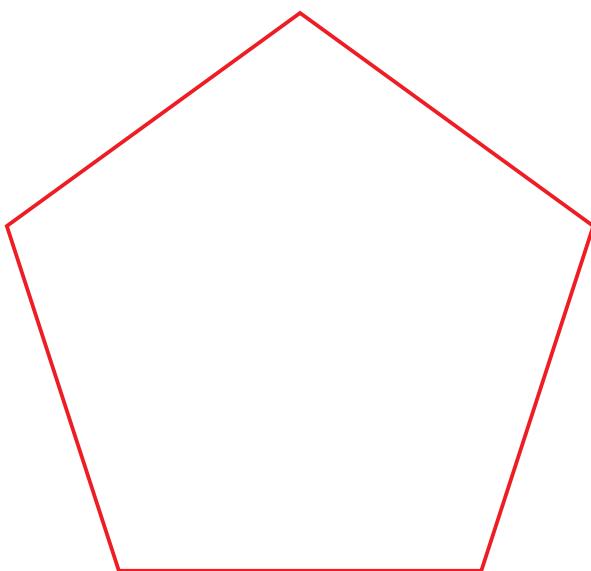
Trapezium 1

Parallelogram 1

2) a) In the box, below, draw a hexagon. 1 b) In the box, below, draw an octagon. 1

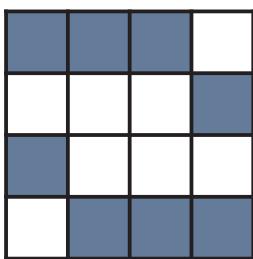


3) a) In the space, below, draw a sketch of a **regular** pentagon. 2

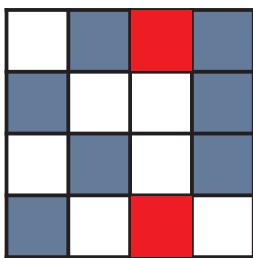


b) In a regular pentagon, what is special about the angles? They are all equal. 1

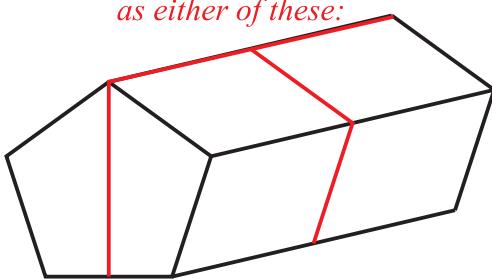
- 4) a) What is the order of rotational symmetry of this shape? 2 2



- b) Shade exactly **two** squares to make this shape have **one** line of symmetry. 2

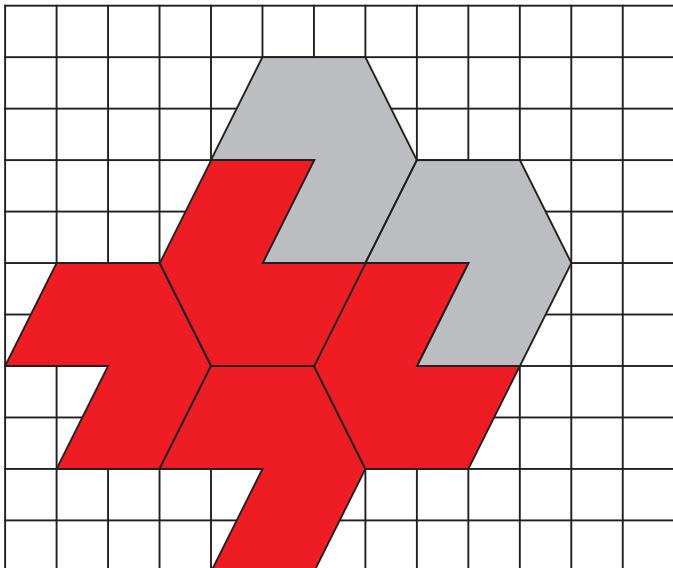


*Any correct answer such
as either of these:*



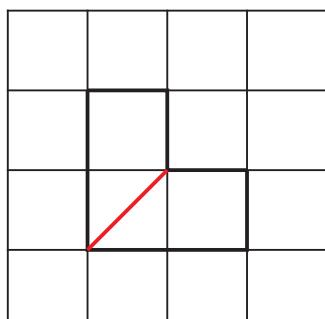
- c) Draw one plane of symmetry on this shape. 2

- 5) This pattern shows part of a tessellation.

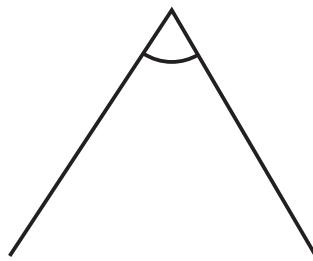
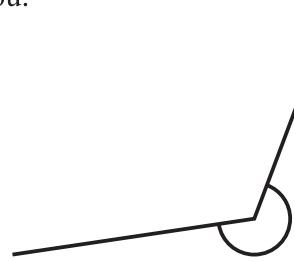
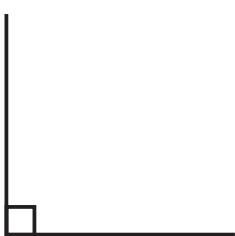


Extend the tessellation by drawing four more unit shapes within the grid. 3

- 6) Draw one straight line on the L-shape to make two congruent shapes. 2



- 7) What type of angles are shown, below?
The first one has been done for you.



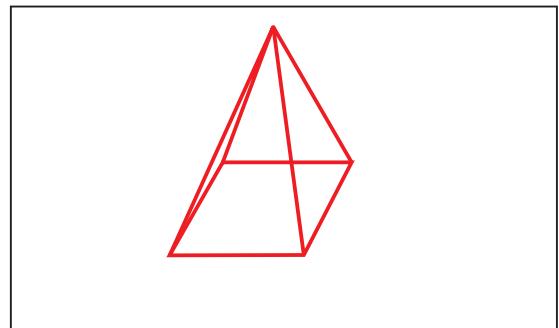
Right angle

a) Reflex angle 1

b) Acute angle 1

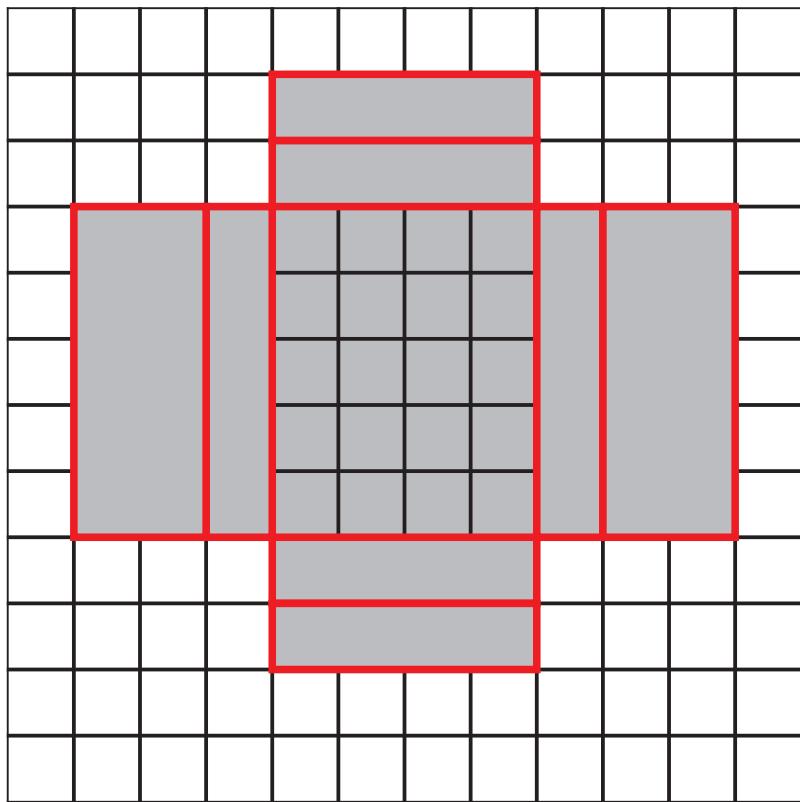
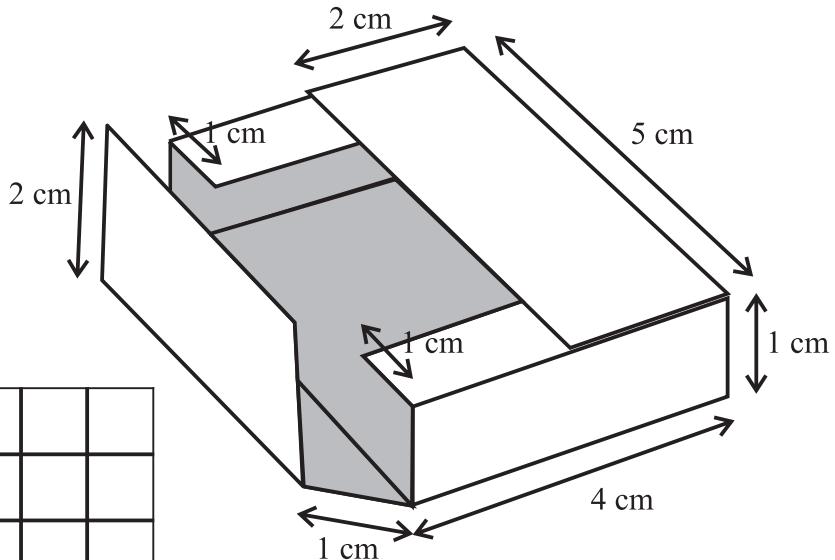
- 8) a) Sketch a square-based pyramid in this box →
b) Fill in the table, below, to say how many faces, edges and vertices a cube has. 3

	Faces	Edges	Vertices
Cube	6	12	8

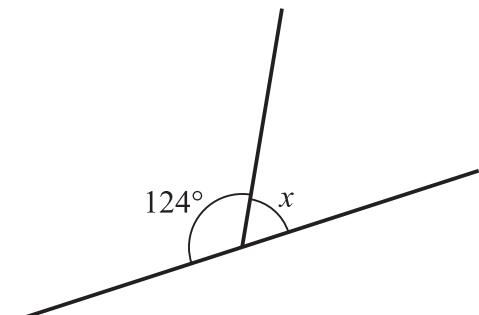


- 9) The diagram shows a box →

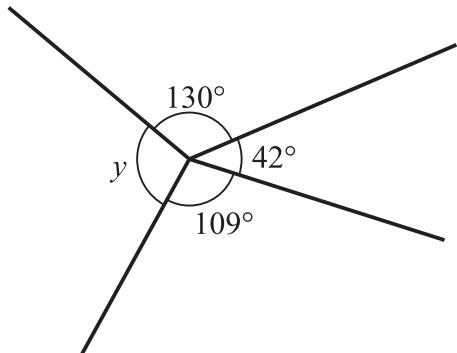
Complete the net for the box. 3



- 10) Work out the size of angles x and y .

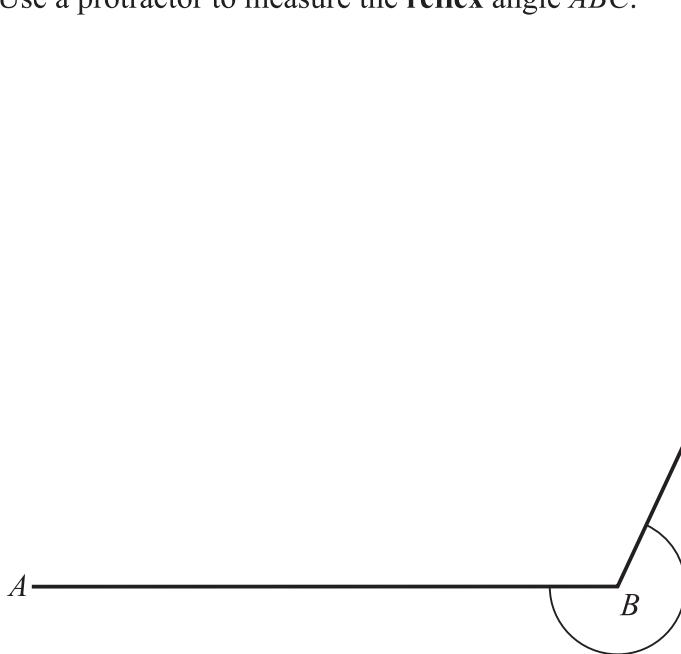


$$x = \underline{\hspace{2cm}} \textcolor{red}{56^\circ} \hspace{0.5cm} ^\circ \hspace{0.5cm} 2$$



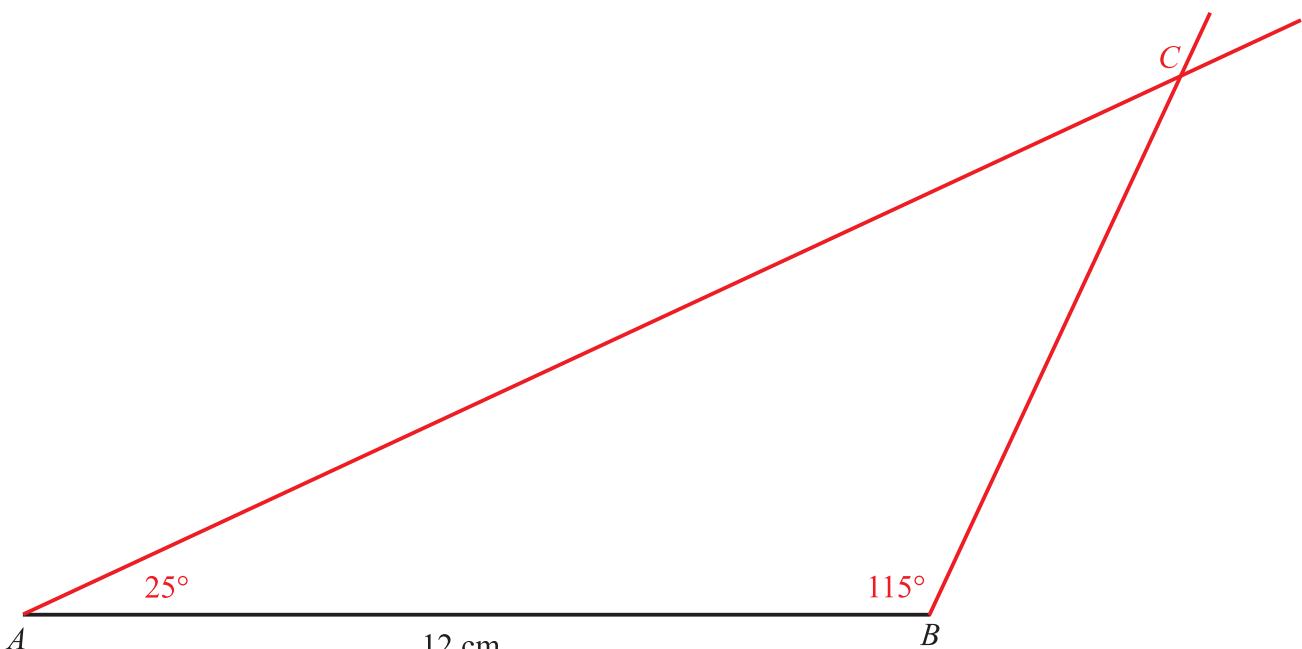
$$y = \underline{\hspace{2cm}} \textcolor{red}{79^\circ} \hspace{0.5cm} ^\circ \hspace{0.5cm} 2$$

- 11) Use a protractor to measure the **reflex** angle ABC .

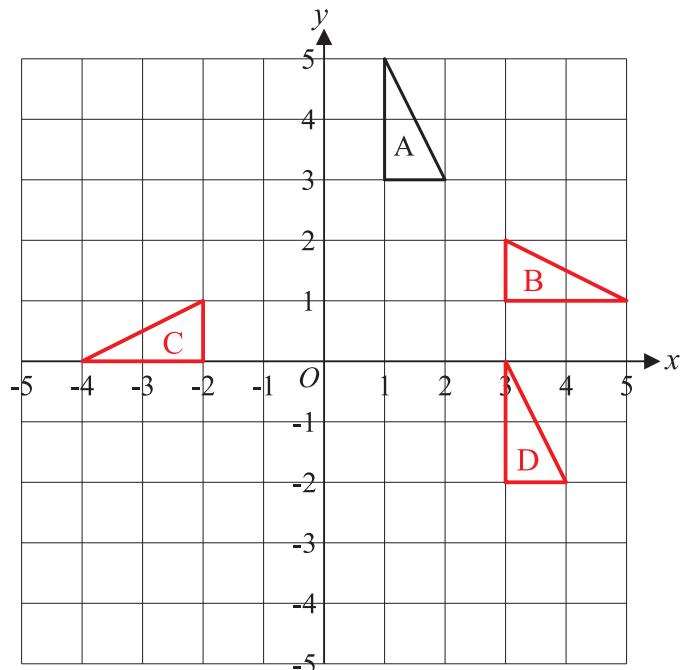


$$\text{Reflex angle } ABC \text{ is } \underline{\hspace{2cm}} \textcolor{red}{245^\circ} \hspace{0.5cm} ^\circ \hspace{0.5cm} 2$$

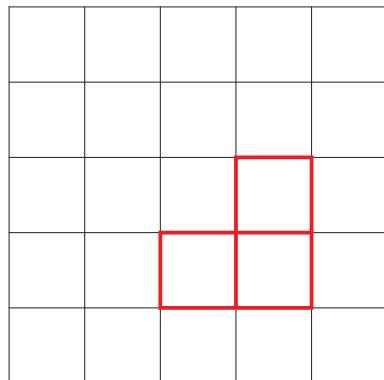
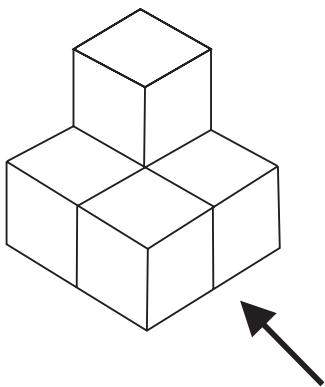
- 12) Draw triangle ABC where AB is 12 cm, angle ABC is 115° and angle BAC is 25° .
Line AB has been drawn for you. 3



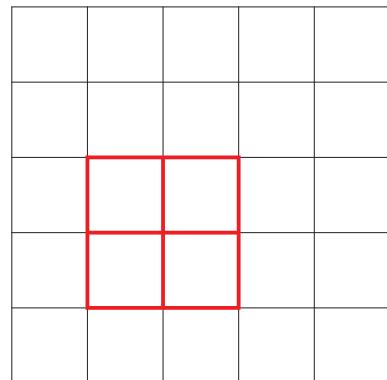
- 13) a) Reflect triangle A in the line $y = x$ and label it B. 2
 b) Rotate triangle A 90° anti-clockwise centre $(1, 0)$ and label it C. 2
 c) Translate triangle A by vector $\begin{bmatrix} 2 \\ -5 \end{bmatrix}$ and label it D. 2



- 14) This solid object is made from five identical cm square cubes.



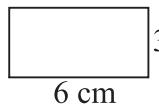
Elevation



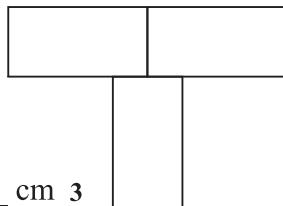
Plan

- a) Draw the elevation of the object on the cm square grid from the direction marked with the arrow. 2
 b) Draw the plan of the solid object on the cm square grid. 2

- 15) Three rectangles like this

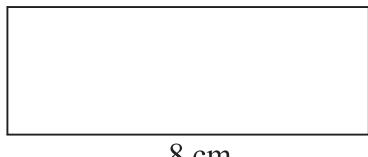


are put together to make this shape. →



What is the perimeter of the shape? 42 cm 3

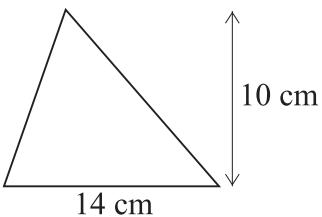
- 16) a) What is the area of this rectangle? 24 cm^2 2



- b) If a rectangle has an area of 90 cm^2 and a length of 20 cm, what is the width of the rectangle? 4.5 cm 2

- 17) a) Find the area of this triangle

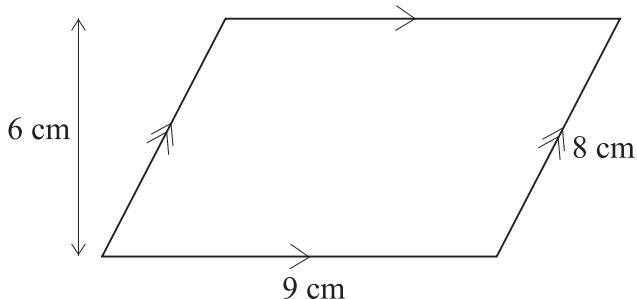
Area is 70 cm² 2



- b) If the base of a triangle has a length of 12 cm and an area of 60 cm² what is its height? 10 cm 2

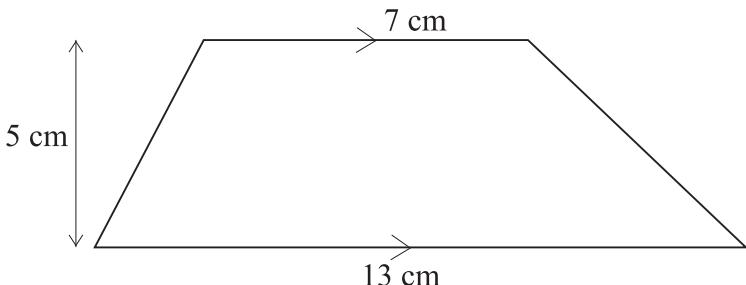
- 18) Find the area of this parallelogram.

Area is 54 cm² 2



- 19) Find the area of this trapezium.

Area is 50 cm² 2



- 20) a) Change 405 cm to metres. 4.05 m 1

b) Change 2.3 kg to grams. 2300 g 1

c) Change 4560 cm³ to litres. 4.56 l 1

- 21) The diagram shows three vertices of a parallelogram.

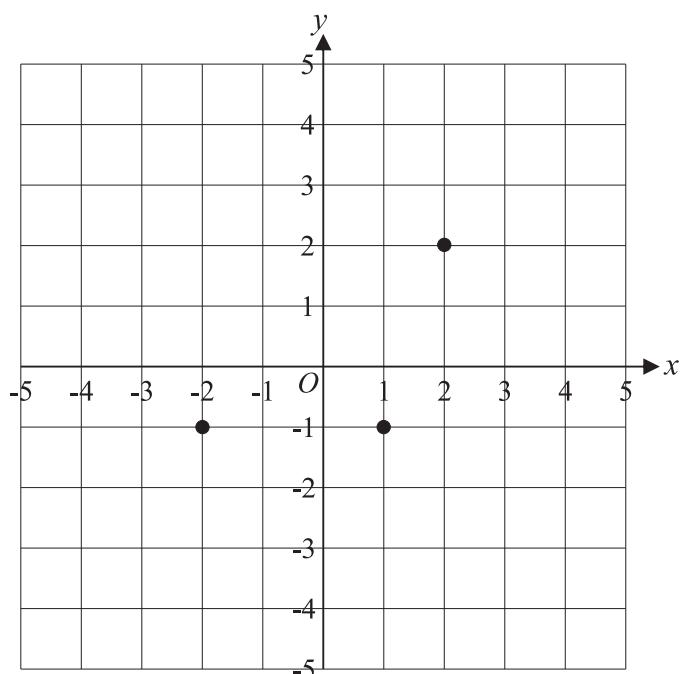
The fourth vertex can be in one of three possible places.

What are the coordinates of the three places?

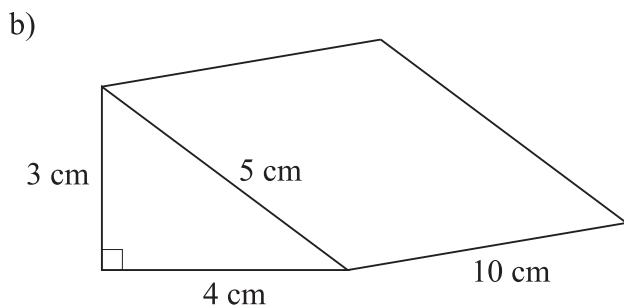
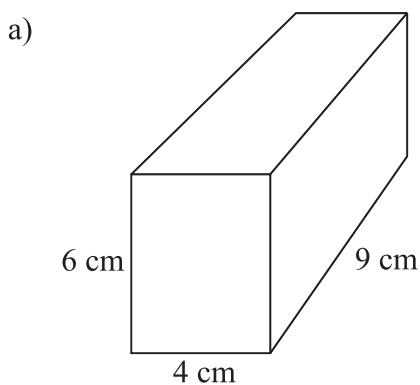
Possibility 1: (5, 2) 1

Possibility 2: (-1, 2) 1

Possibility 3: (-3, -4) 1



- 22) Below you will see a cuboid and a triangular prism.
Find the total surface area of each of them.

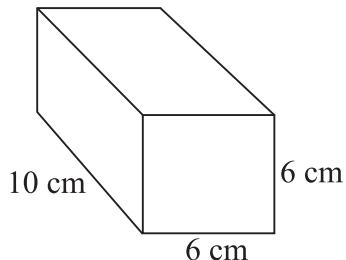


Total surface area = 228 cm² 3

Total surface area = 132 cm² 3

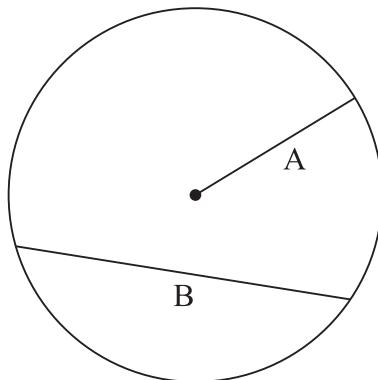
- 23) What is the volume of this cuboid?

Volume is 360 cm³ 2



- 24) Fill in the blanks

a) Line A is a radius of the circle. 1



b) Line B is a chord of the circle. 1