

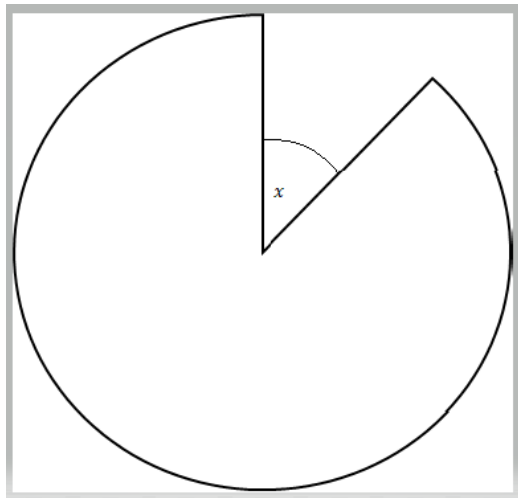
Angles Level 1 and 2

Question 1 (Non-Calculator Level 2)

Dan wants to make a template for a cone hat.

The template is made by removing a sector from a circle.

He wants the angle of the sector to be $\frac{3}{20}$ of a full turn.



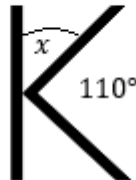
Work out the angle of the sector x in the diagram.

Question 2 (Calculator Level 2)

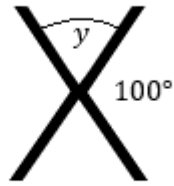
Eric is designing the lettering for a new shop sign for computing business K.X.

He needs to calculate the angles in each letter.

Eric knows his letter K has one line of symmetry.



(a) Work out the size of the angle marked x

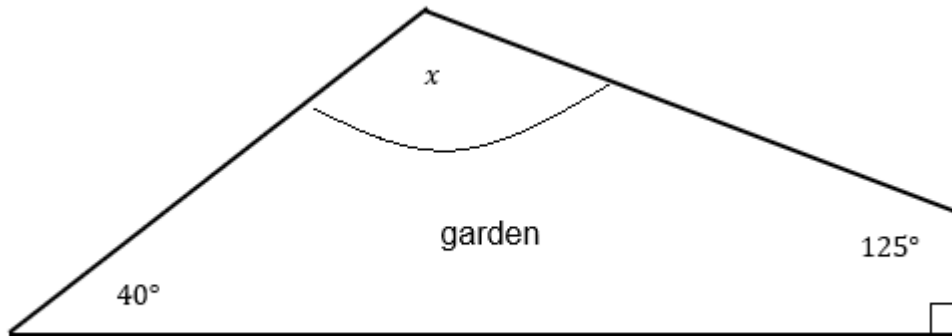


(b) Work out the size of the angle marked y

Question 3 (Calculator Level 2)

Simon is planning to build a shed in his garden.

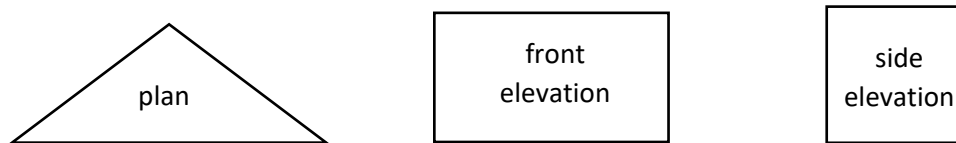
He draws a sketch of his garden.



Simon wants to put the shed where the angle x is marked.

(a) Work out the size of the angle marked x .

Simon draws a sketch of the plan view, front elevation and side elevation of the shed he designs.

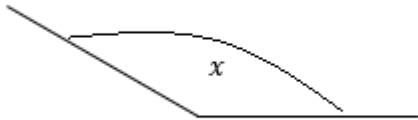


(b) Which 3d shape could be the design of the shed?
Tick the correct answer.

- square based pyramid
- triangular based pyramid
- triangular prism
- cuboid

Question 4 (Calculator Level 1)

Here is an angle.



(a) Measure the size of the angle marked x .

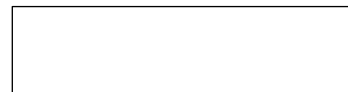
Here is a rectangle.



(b) Draw all the lines of symmetry on this rectangle.

Tamsin is facing North. She turns to face South.

(c) How many degrees has she turned through?



Mark Scheme

| Question | Process | Mark | Mark Ref | Evidence |
|---------------------------------|----------------------------------|----------|------------|-------------------------------|
| Q1 | Begins process to find angle x | 1 or | A | $360 \div 20 (=18)$ oe |
| | Full process to find angle x | 2 or | AB | '18' x 3 (=54) oe |
| | Accurate figure | 3 | ABC | 54(°) |
| Total marks for question | | 3 | | |

| Question | Process | Mark | Mark Ref | Evidence |
|---------------------------------|----------------------------|----------|-----------|--------------------------------------|
| Q2(a) | Process to calculate angle | 1 or | A | $(180 - 110) \div 2 (=35)$ oe |
| | Accurate figure | 2 | AB | 35(°) |
| Q2(b) | Accurate figure | 1 | C | 80(°) |
| Total marks for question | | 3 | | |

| Question | Process | Mark | Mark Ref | Evidence |
|---------------------------------|---------------------------|----------|-----------|--|
| Q3(a) | Process to find angle x | 1 or | A | $360 - 90 - 125 - 40 (=105)$ oe |
| | Accurate figure | 2 | AB | 105(°) |
| Q3(b) | Correct answer indicated | 1 | C | Triangular prism |
| Total marks for question | | 3 | | |

| Question | Process | Mark | Mark Ref | Evidence |
|---------------------------------|---------------------------|-------------|-----------------|------------------------------------|
| Q4(a) | Accurately measured angle | 1 | A | $150^\circ (+/- 2^\circ)$ |
| Q4(b) | Draws lines of symmetry | 1 | B | Two lines of symmetry and no extra |
| Q4(c) | Correct answer | 1 | C | 180° |
| Total marks for question | | 3 | | |