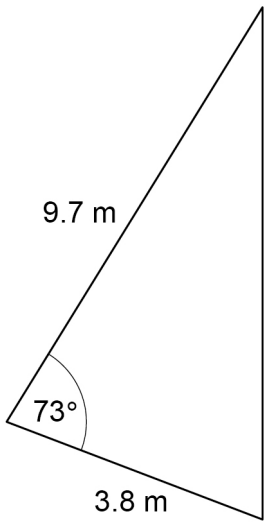
1 Here is a triangular sail.



Not drawn accurately

1 (a) Vicky needs to buy waterproofing liquid for the sail.

She will put **3 coats** of liquid on **each** side of the sail.

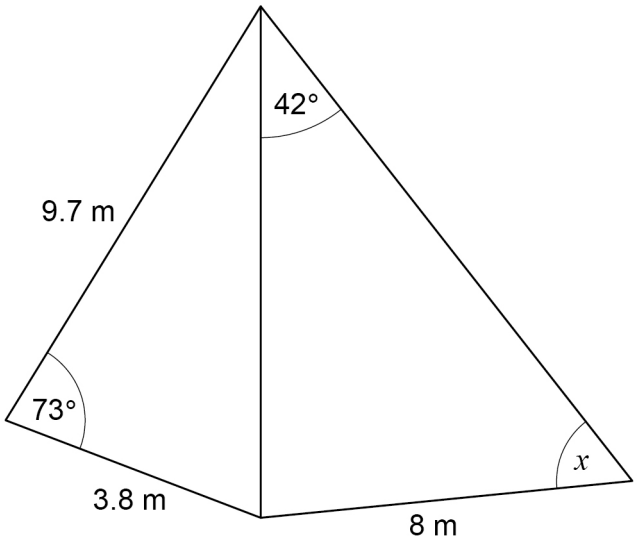
A litre of liquid covers 8.5 square metres of sail.

How many 1-litre bottles of liquid does Vicky need?

[3 marks]

Answer _____

1 (b) Another sail is joined to the first sail as shown.



Not drawn accurately

x is an acute angle.

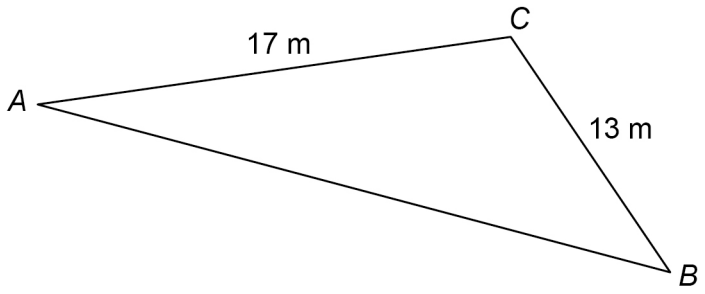
Work out the size of angle x.

[5 marks]

Answer _____ degrees

2 (a) Here is a triangle.

Not drawn accurately

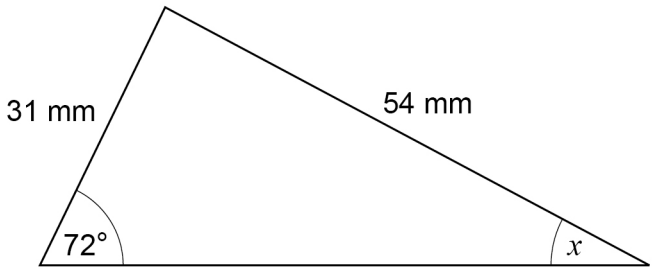


Give a reason why the length of side *AB* **cannot** be 35 m

[1 mark]

2 (b) Here is a different triangle.

Not drawn accurately



Leah tries to use the sine rule to work out the size of angle x.

Here are the first two lines of her working.

$$\frac{x}{\sin 31} = \frac{54}{\sin 72}$$

$$x = \frac{54 \sin 31}{\sin 72}$$

What error has she made in this working?

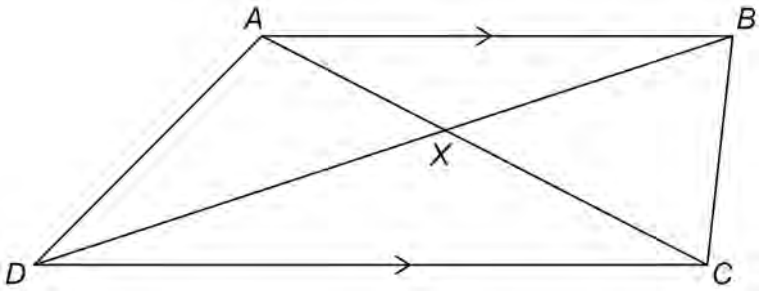
[1 mark]

3 *ABCD* is a trapezium.

All four sides are different lengths.

AB is parallel to *CD*.

The diagonals intersect at *X*.



Not drawn accurately

For each statement, tick the correct box.

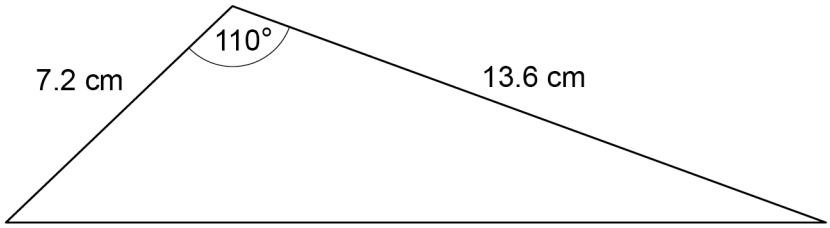
[4 marks]

	True	May be true	Not true
Triangles *AXB* and *CXD* are similar	☐	☐	☐
Triangles *AXD* and *BXC* are congruent	☐	☐	☐
Angle *ADB* = angle *BDC*	☐	☐	☐
Area of triangle *ABC* = area of triangle *ABD*	☐	☐	☐

4 Two sides of a triangle are measured to 1 decimal place.

The angle between the sides is measured to the nearest degree.

Not drawn accurately



Work out the upper bound for the area of the triangle.

You **must** show your working.

[4 marks]

Answer _____ cm^2