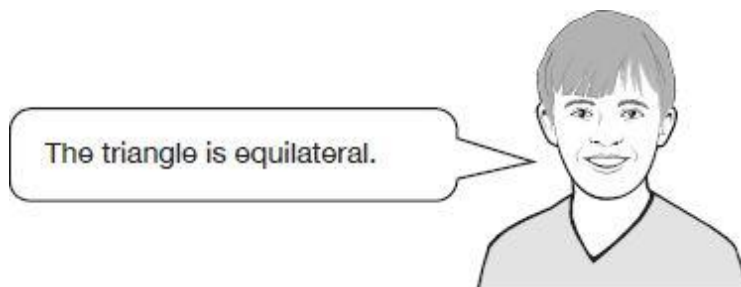


**Q1.**

Two of the angles in a triangle are  $70^\circ$  and  $40^\circ$

Jack says,



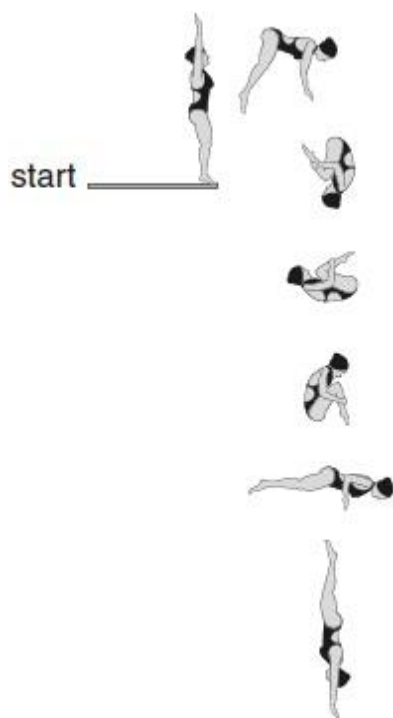
Explain why Jack is **not** correct.

A large, empty, cloud-shaped bubble with a scalloped border, intended for the student to write their explanation.

1 mark

**Q2.**

Layla completes one-and-a-half somersaults in a dive.

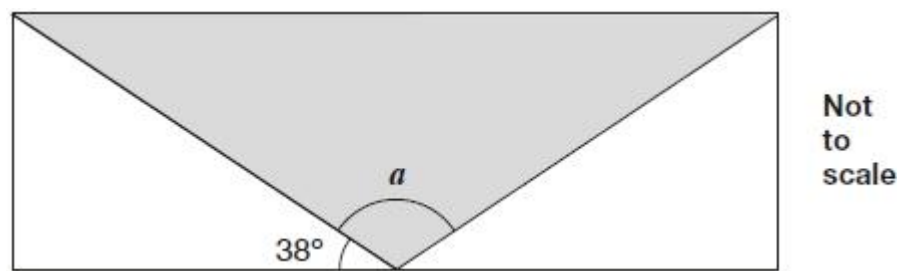


How many **degrees** does Layla turn through in her dive?

1 mark

Q3.

A shaded **isosceles** triangle is drawn inside a rectangle.



Calculate the size of angle *a*.

Show your method

2 marks

Q4.

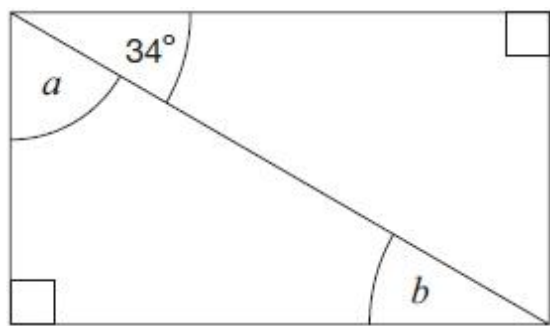
Join dots on the grid to make a quadrilateral that has **3 acute** angles.



1 mark

Q5.

Here is a rectangle.



Not to  
scale

Calculate the size of angles  $a$  and  $b$ .

Do **not** measure the angles.

$a =$

1 mark

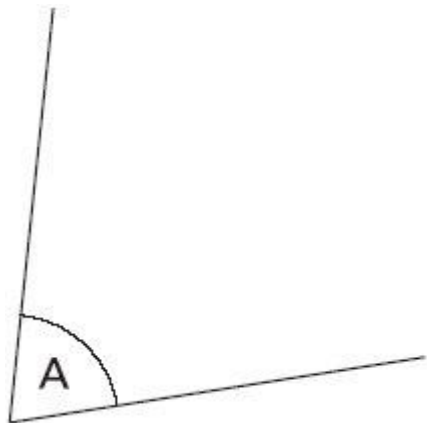
$b =$

1 mark

**Q6.**

Measure **angle A** accurately.

Use a protractor (angle measurer).



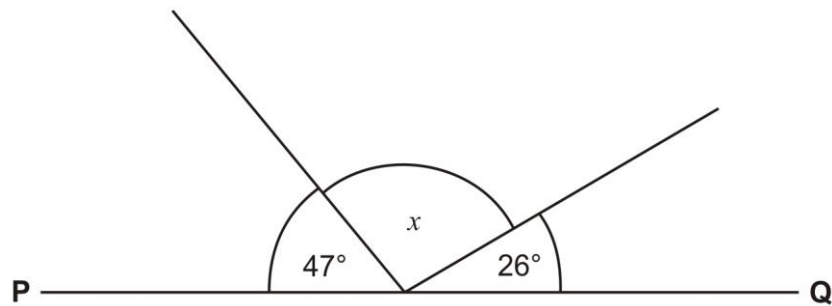
angle A

1 mark

**Q7.**

**PQ** is a straight line.

Not drawn  
accurately



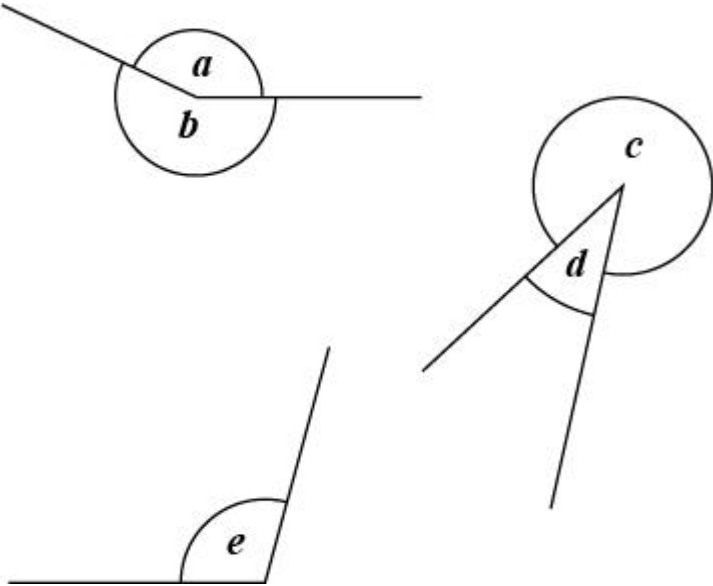
**Calculate** the size of angle  $x$ .

Do **not** use a protractor (angle measurer).

1 mark

**Q8.**

Look at angles *a*, *b*, *c*, *d* and *e*



Write the angles in order of size, starting with the smallest.

--	--	--	--	--

smallest

1 mark

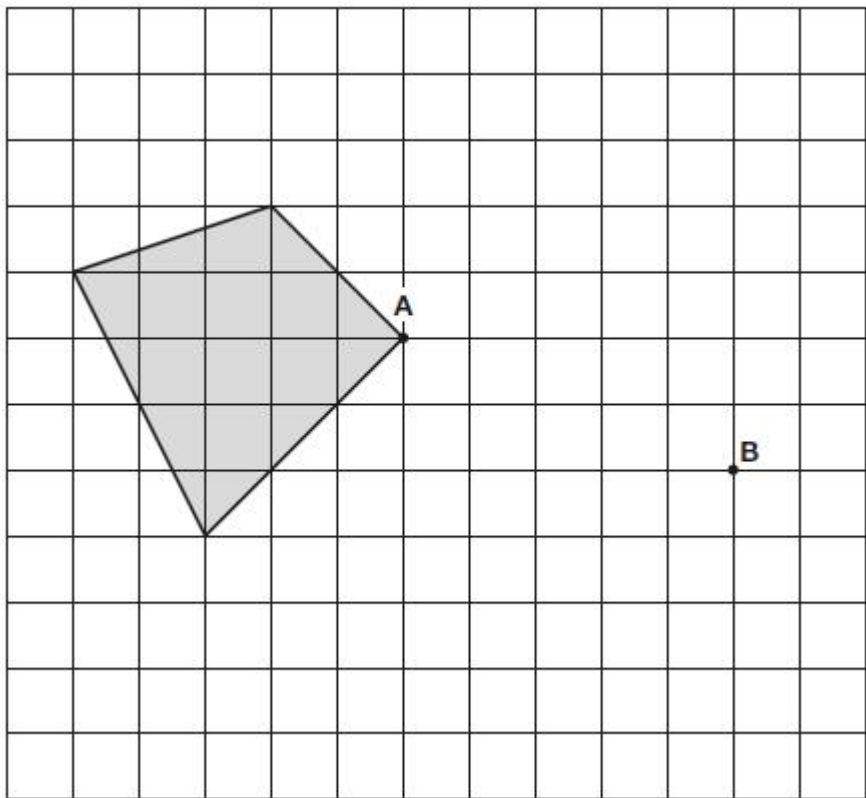
**Q9.**

Here is a shaded shape on a grid.

The shape is translated so that point **A** moves to point **B**.

Draw the shape in its new position.

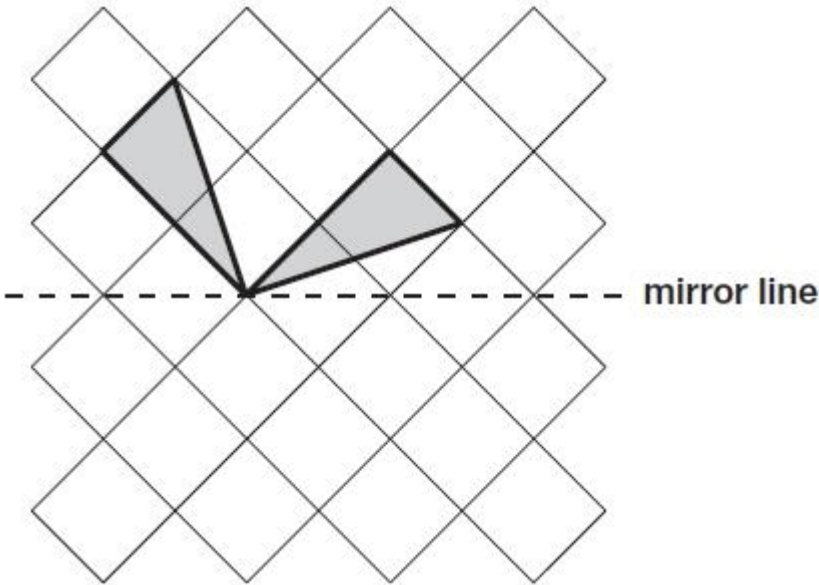
Use a ruler.



2 marks

**Q10.**

Complete this shape so that it is symmetrical about the mirror line.  
Use a ruler.



1 mark

## Mark schemes

### Q1.

An explanation showing an understanding:

- that this specific triangle has angles 70, 70 and 40

**OR**

- of the properties of an equilateral triangle – all angles are equal ( $60^\circ$ )

and therefore that this triangle cannot be equilateral, e.g.

- The angles aren't  $60^\circ$
- There is not a  $60^\circ$  angle
- It has two different angles ( $70^\circ$  and  $40^\circ$ ) so it can't be equilateral
- The angles aren't the same
- An equilateral triangle has  $60^\circ + 60^\circ + 60^\circ$
- All the angles are the same in an equilateral triangle
- It's an isosceles triangle.

(In the context of this question, the term isosceles triangle is treated as not including equilateral triangles as a special type, as the national curriculum does not specify this at key stage 2.)

**Do not** accept vague or incomplete explanations, e.g.

- The other angle is  $70^\circ$
- They aren't (all) the same. (No reference to angles)
- An equilateral triangle has equal angles. (Does not say all.)

**Do not** accept explanations which include incorrect mathematics or incorrect information that is relevant to the explanation, e.g.

- $40 + 70 = 110 + 70 = 180$

[1]

### Q2.

540

[1]

### Q3.

Award **TWO** marks for the correct answer of  $104^\circ$ .

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

- $180 - 38 - 38 = a$

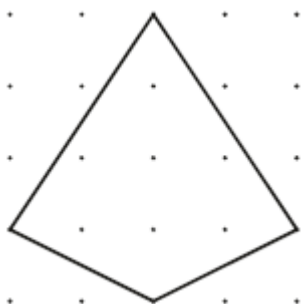
Answer need not be obtained for the award of **ONE** mark.

Up to 2

[2]

**Q4.**

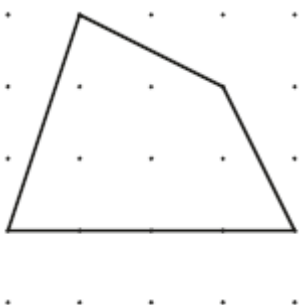
A quadrilateral with three acute angles, e.g.



**OR**



**OR**



*Accept inaccurate drawing provided the intention is clear.*

[1]

**Q5.**

(a) 56

1

(b) 34

*If the answers to (a) and (b) are incorrect, award **ONE** mark if their (a) plus their (b) = 90°, provided that (b) is **not** 45°, 30° or 60°.*

1

[2]

**Q6.**

Answers in the range 74° to 76° inclusive.

[1]

**Q7.**

107

[1]

**Q8.**

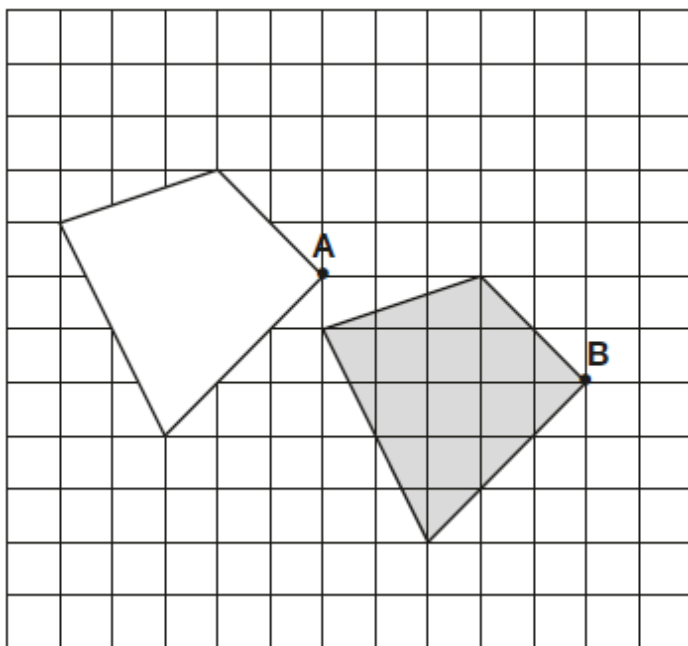
Letters written in order as shown

*d, e, a, b, c*

[1]

**Q9.**

Award **TWO** marks for three vertices of the shape, excluding B, translated correctly as shown below:



If the answer is incorrect, award **ONE** mark for two vertices, excluding B, translated correctly.

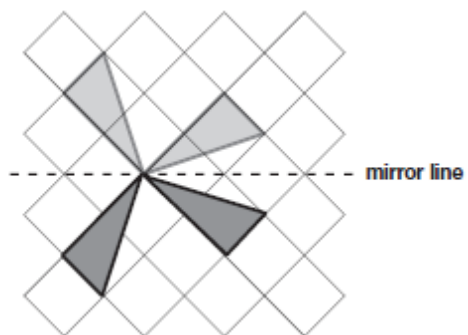
*Accept slight inaccuracies in drawing provided intention is clear.*

Up to 2

[2]

**Q10.**

Diagram completed as shown:



*Accept slight inaccuracies in drawing.  
Diagram need not be shaded.*

[1]