Year 6 Maths Home Learning

Week nine includes:

- Maths I do you do – read the Angles PowerPoint and recap your angles facts(40 minutes)
- Practice questions (30 minutes)
- Evidence questions (30 minutes)
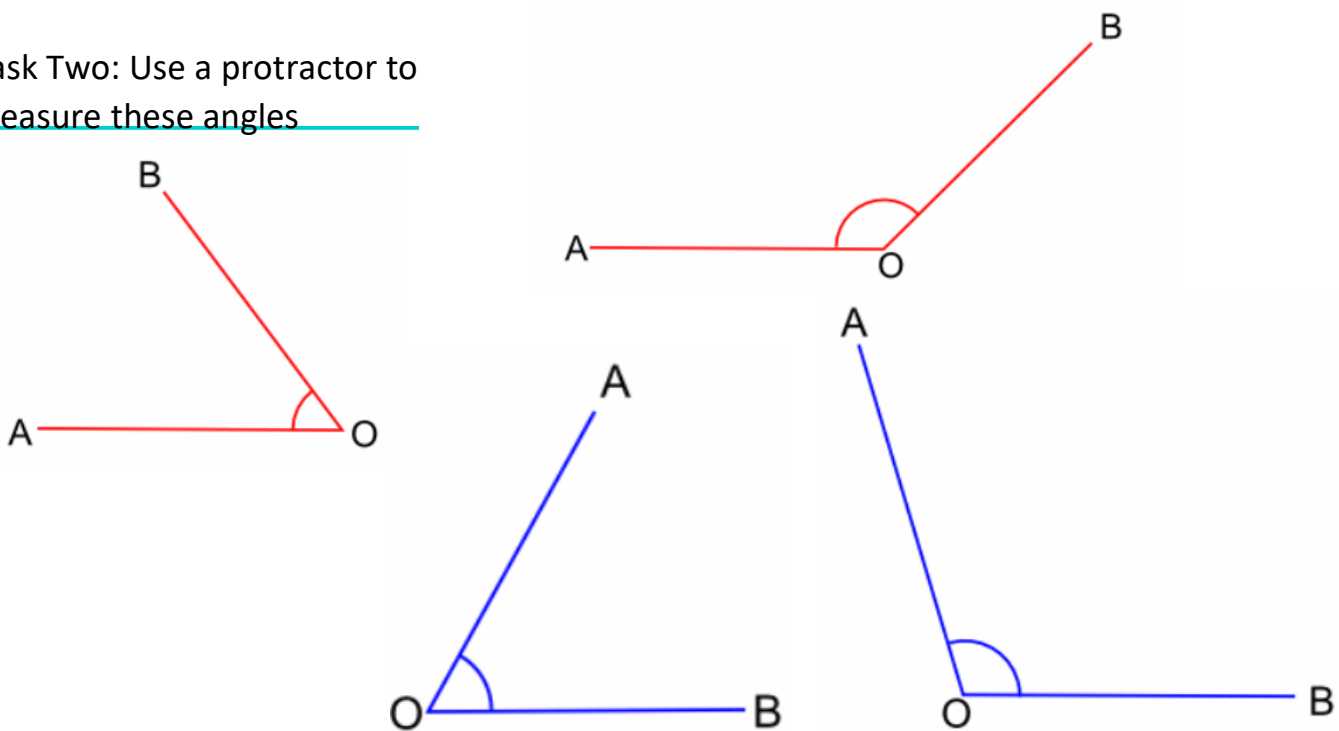- Reasoning questions – SATS style questions (as long as it takes!)
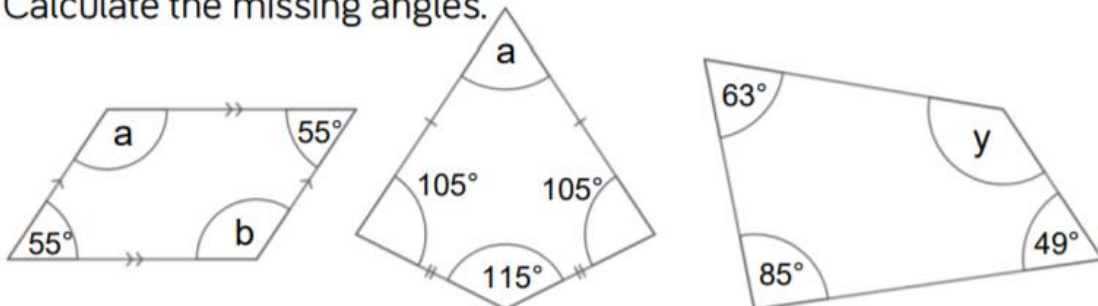
Practice Questions

Task One:

Using a protractor and ruler draw:

- A square with sides 4cm long

- A right angled triangle with an angle of 43°
  and a base of 6cm

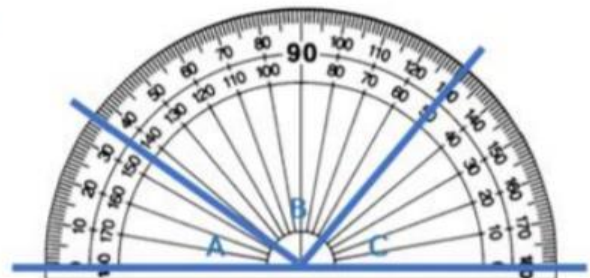Task Two: Use a protractor to measure these angles

Calculate the missing angles.
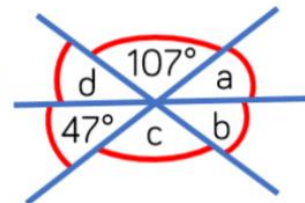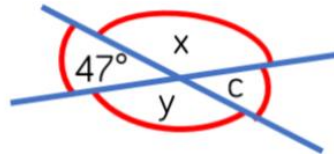

Work out the size of each angle.

Explain how you found your answers.

3

Complete the table.

Angle	Fraction of a full turn	Degrees
Right angle	$\frac{1}{4}$	90°
Straight line		
Three right angles		
Full turn		

Find the size of the missing angles.
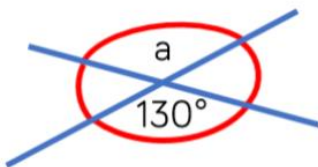
Is there more than one way to find them?

Work out the value of f and g.
Explain each step of your working.

Evidence Questions

If it takes 60 minutes for the minute hand to travel all the way around the clock, how many degrees does the minute hand travel in:
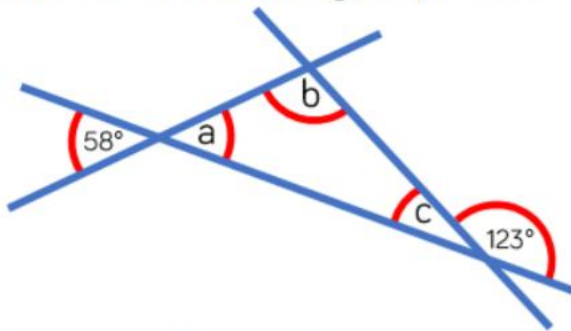- 7 minutes
- 12 minutes

How many minutes have passed if the minute hand has moved 162°?

There are five equal angles around a point.

What is the size of each angle?

Explain how you know.

Calculate the size of angles a, b and c.

Give reasons for all of your answers.

Always, sometimes, never.

W to S = 90 degrees
NE to SW = 180 degrees
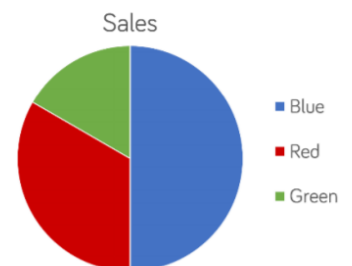E to SE in a clockwise direction > 90°

Jack says,

All quadrilaterals have at least one right angle.

Draw two different shapes to prove Jack wrong. Measure and mark on the angles.

Here is a pie chart showing the colour of cars sold by a car dealer.
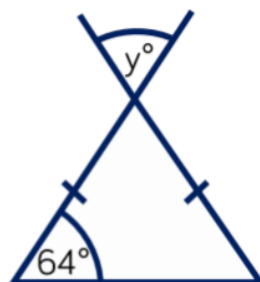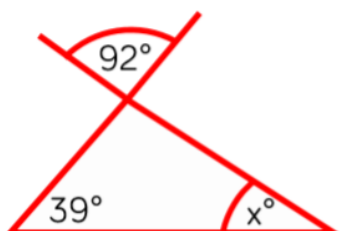
Sales

- Blue
- Red
- Green

The number of blue cars sold is equal to the total number of red and green cars sold.

The number of red cars sold is twice the number of green cars sold.

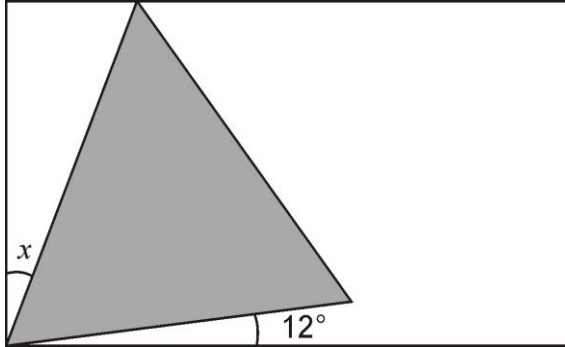Work out the size of the angle for each section of the pie chart.

Work out the value of x and y.
Explain each step of your working.

92°

39°   x°

y°

64°

Reasoning

Q1.

Here is an **equilateral triangle** inside a **rectangle**.

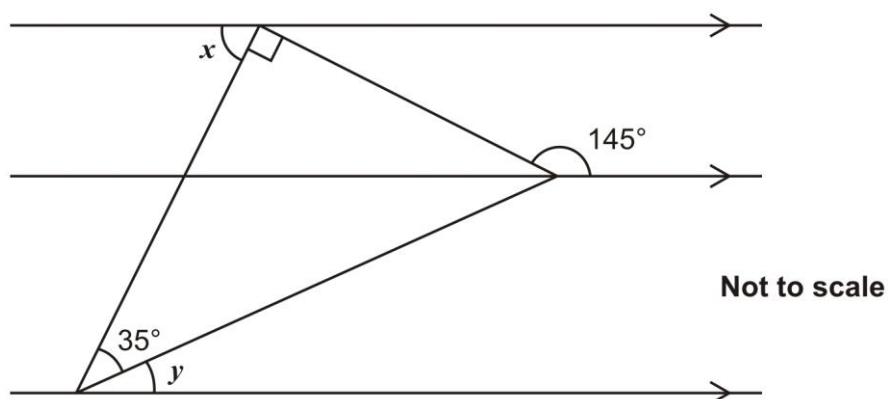

Not to scale

Calculate the value of angle **X**.

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

Show
your
method

2 marks

Q2.

The diagram shows a right-angled triangle and three parallel lines.

Not to scale

Calculate the size of angle x and angle y

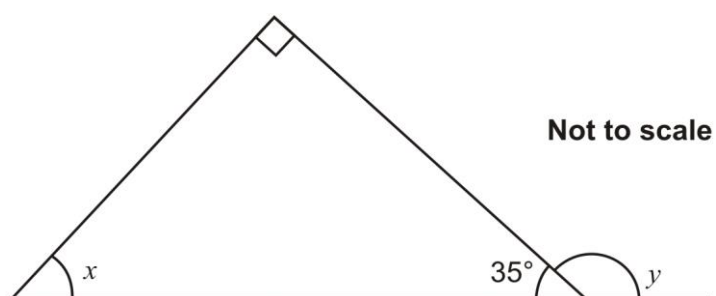Do **not** use a protractor (angle measurer).

$x =$ _____ °

1 mark

$y =$ _____ °

1 mark

Q3.

Look at this diagram.

Not to scale

Calculate the size of angle x and angle y.

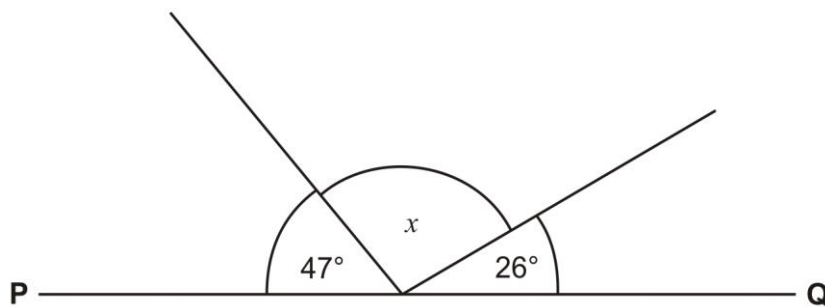Do **not** use a protractor (angle measurer).

$x =$ _____ °

1 mark

$y =$ [ ]°

1 mark

Q4.

PQ is a straight line.

Not drawn
accurately

Calculate the size of angle x.
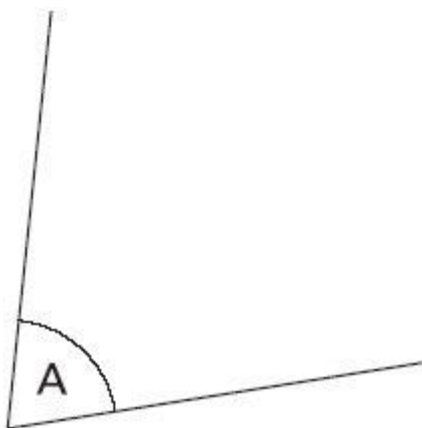
Do **not** use a protractor (angle measurer).

[ ]°

1 mark

Q5.

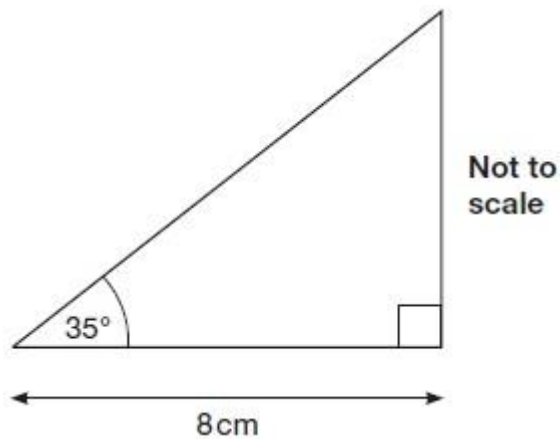Measure **angle A** accurately.

Use a protractor (angle measurer).

[ ]°

1 mark

Q6.

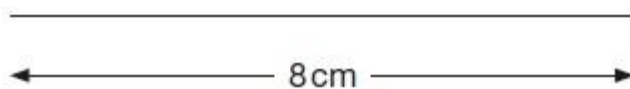Here is a sketch of a triangle.

It is not drawn to scale.

Not to scale

35°

8 cm

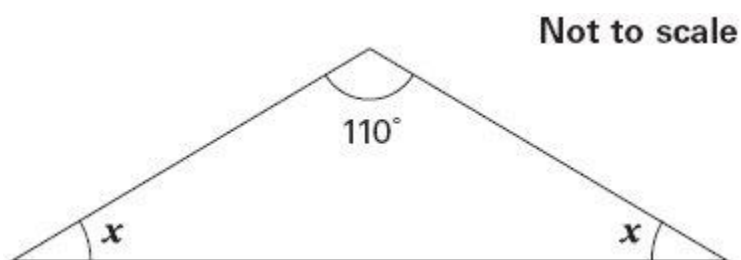Draw the full-size triangle **accurately** below.

Use an angle measurer (protractor) and a ruler.
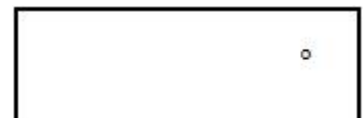
One line has been drawn for you.

8 cm

2 marks

Q7.

Here is an isosceles triangle.

Not to scale

110°

x   *x*

Calculate the size of angle *x*.

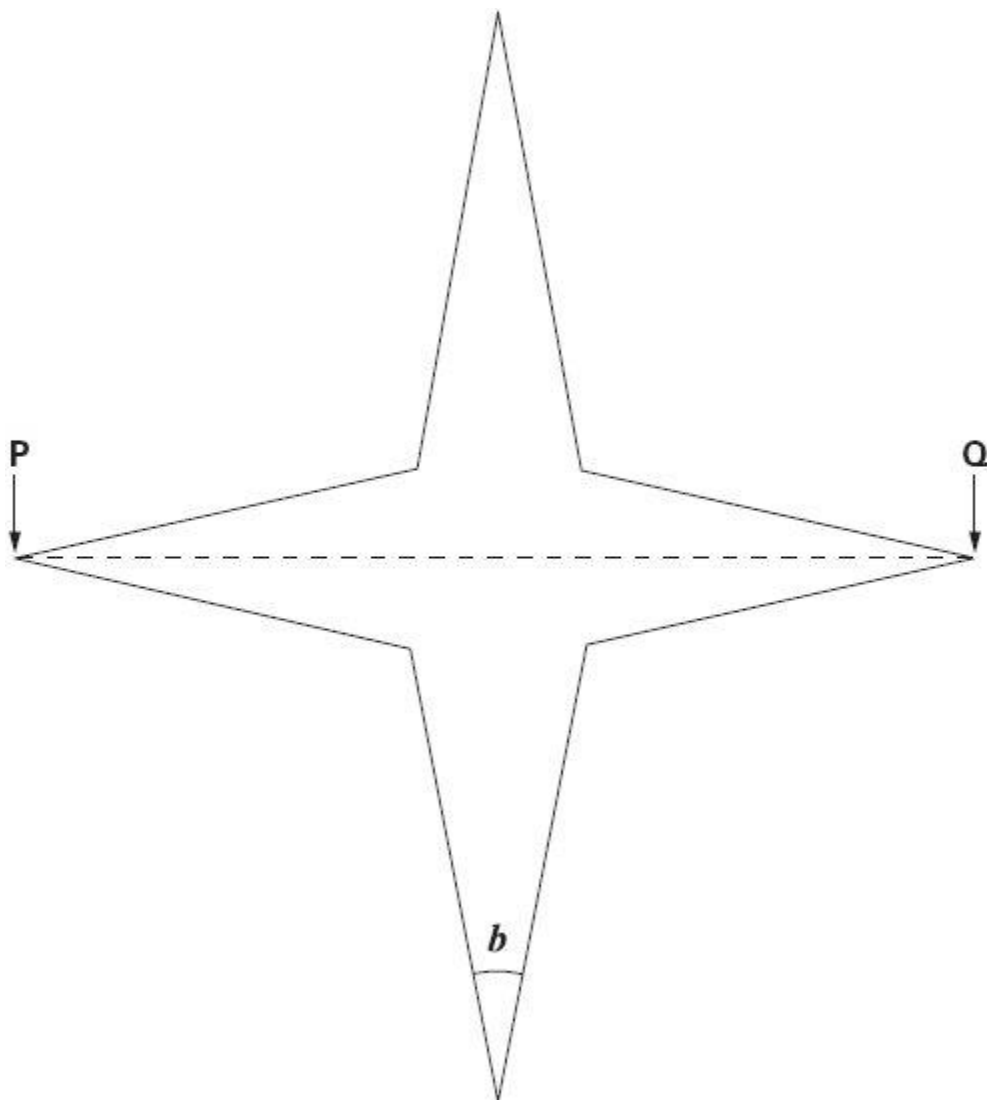Do **not** use a protractor (angle measurer).

°

1 mark

Q8.

Look at this star.

Use a ruler to measure **accurately** the **width** of the star, from **P** to **Q**.

Give your answer in **millimetres**.

mm

1 mark

Use a protractor (angle measurer) to measure **angle** b.
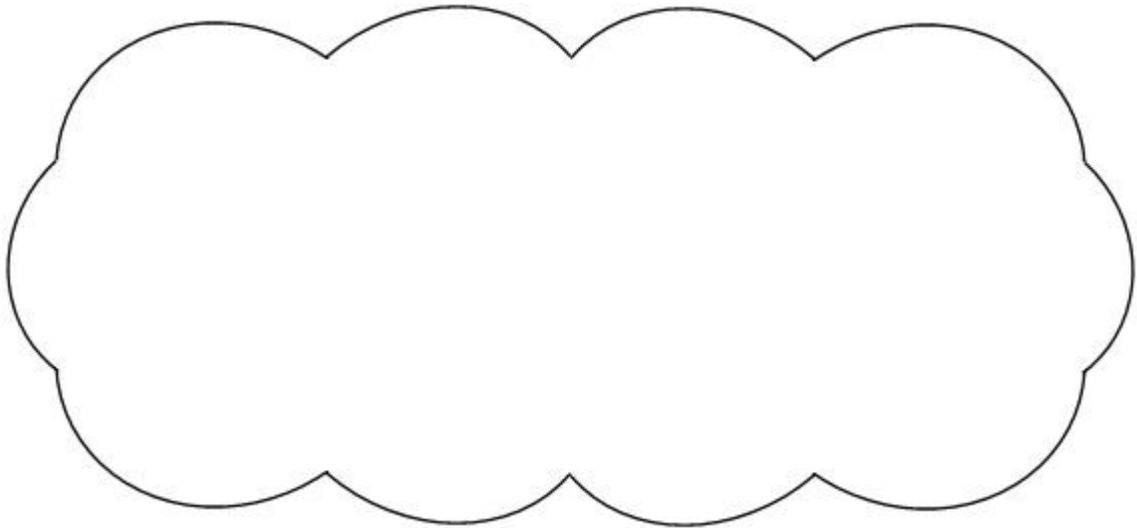
°

1 mark

Q9.

Kirsty says,

When you double the size of an acute angle, you always get an obtuse angle.
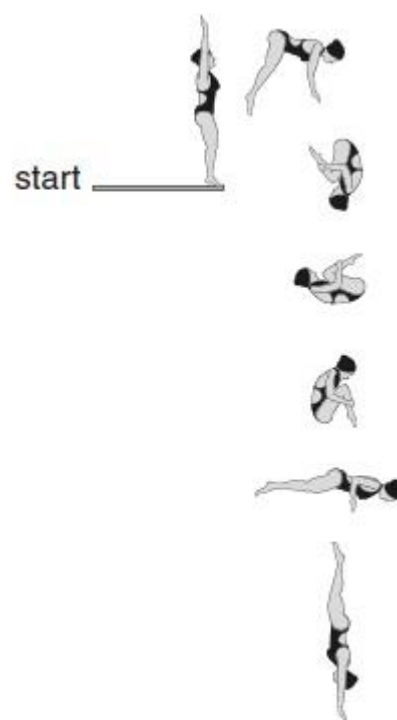
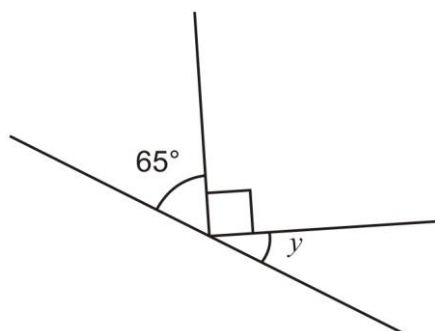Explain why Kirsty is **not** correct.

1 mark

Q10. Layla completes one-and-a-half somersaults in a dive.

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

start _____

1 mark

Q11.

65°

y

Not to scale

Calculate the size of angle *y* in this diagram.

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

1 mark