

Monday 27.4.20

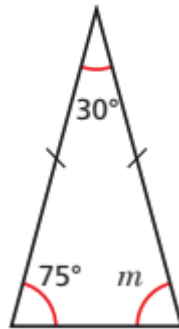


These lines indicate that the two angles are

opposite angles.

This means that they will be the same size angle.

Monday 27.4.20



Here is a triangle.

Q1 What kind of triangle is it? How do you know? **Isosceles triangle**

Q2 Work out the size of angle *m*. **75°**

Monday 27.4.20

Q3

Complete the sentence to describe the angles in this type of triangle:

In an **isosceles** triangle, the angles **add up to 180°**. **Two of these angles will be the same.**

Monday 27.4.20

Q4

Your knowledge of triangles that you learnt last week should help with this question.

Are these statements true or false?

Every isosceles triangle is equilateral **False**

Every equilateral triangle is an isosceles **True**

A right-angled triangle can be equilateral **False**

A right-angled triangle can be an isosceles **True**

Tuesday 28.4.20

Q1

Two angles in a triangle are 43° and 74°

Is the triangle isosceles? **No** Show your working out. **The missing angle is 63° so there is not a pair of angles.**

**43° + 74° = 117°      180° - 117° = 63°**

Tuesday 28.4.20

Q2

One angle in an isosceles triangle is 29°. What could the other angle be? Give two possible answers.

**29° and 122° = 151°      + 29° = 180°**

**75.5° and 75.5° = 151°      + 29° = 180°**

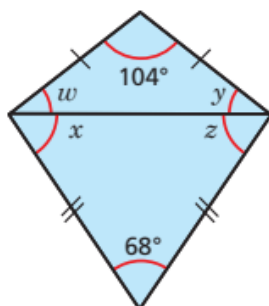
**Each answer has a pair of angles that are the same.**

Tuesday 28.4.20

Q3

Two isosceles triangles are joined together to form a kite. Work out the size of the unknown angles.

*(Think about opposite angles and the properties of an isosceles to help you.)*



W = **38°**

X = **56°**

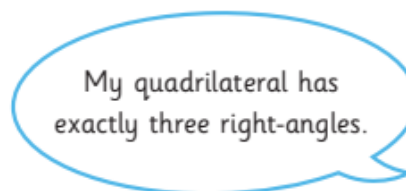
Y = **38°**

Z = **56°**

Tuesday 28.4.20

Q4

Teddy is drawing a quadrilateral.



Is Teddy's quadrilateral possible? **No**

Explain your answer. **3 x 90 = 270      360 - 270 = 90**

**If three angles were right angles, the third would also have to be a right angle.**

**Wednesday 29.4.20**

**Q1**

Match each diagram to the correct rule



Angles on a straight line sum to 180°



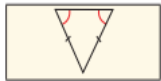
Angles around a point sum to 360°



Angles in a triangle sum to 180°



In an isosceles triangle, two angles are equal



Vertically opposite angles are equal

**Wednesday 29.4.20**

**Q2**

Write a summary of what you know about:

E.g. Vertically opposite angles: when two straight lines cross they form opposite angles that are equal.

Angles in a quarter turn **90°**

Angles in a half turn **180°**

Angles in a three-quarter turn **270°**

Angles in a full turn **360°**

Angles in a triangle **add up to 180°**

Angles in an isosceles triangle **add up to 180° and has one pair of equal angles**

Angles in a quadrilateral **add up to 360°**

**Wednesday 29.4.20**

**Reasoning**

**Q3**

Kirsty says,



“When you double the size of an acute angle, you get an obtuse angle.”

Explain why Kirsty is **not** correct.

**E.g. When you double 10° it is not obtuse**

•  $2 \times 27^\circ = 54^\circ$

• **Double 45° is a right angle not obtuse**

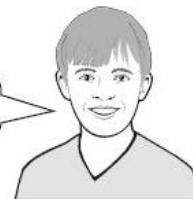
**Wednesday 29.4.20**

**Q4**

Two of the angles in a triangle are 70° and 40°

Jack says,

The triangle is equilateral.



Explain why Jack is **not** correct

**e.g. This specific triangle has angles 70°, 70° and 40°**

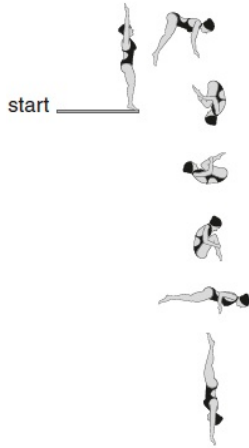
**The properties of an equilateral triangle – all angles are equal (60°) and therefore that this triangle cannot be equilateral.**

Thursday 30.4.20

Q1

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

How many degrees does Layla turn through her dive?

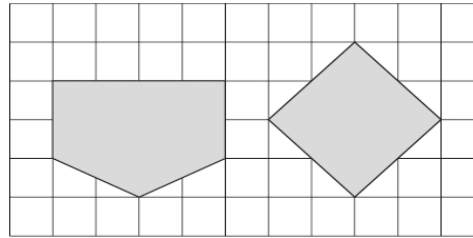


540°

Thursday 30.4.20

Q2

Here are two shapes on a square grid. For each shape, write how many right-angles it has.



2



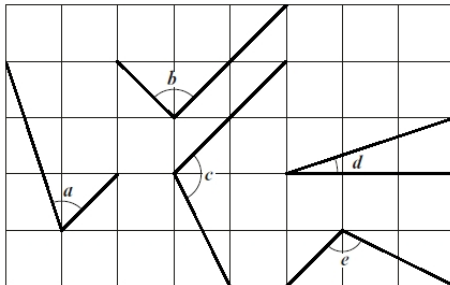
4

Thursday 30.4.20

Q3

Here are five angles marked on a grid of squares. Write the letters of the angles that are obtuse. **c and e**

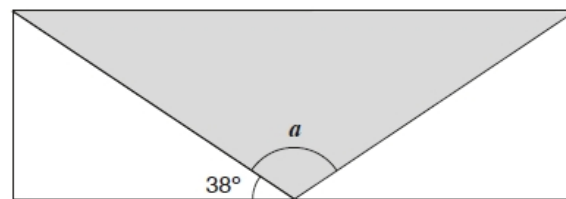
Write the letters of the angles that are acute. **a and d**



Friday 31.4.20

Q1

A shaded isosceles triangle is drawn inside a rectangle.



Not to scale

----- straight line 180° -----

Calculate the size of angle *a*. **104°**

$$180 - 38 - 38 = a$$

Friday 31.4.20

Q2

Anna has **four** different triangles. Complete the table to show the size of the angles in each triangle.

Type of triangle	Angle 1	Angle 2	Angle 3
Isosceles	90°	45	45
Right-angled	80°	90	10
Isosceles	70°	70	40
Isosceles	70°	55	55