

Hello children. Welcome to a new week. **I hope that you are still completing your daily X Tables Rockstars!**

Before our main task we are going to work on another math brain teaser.

Maths Brain Teaser - 7

Fill the following grid
with the following
numbers:

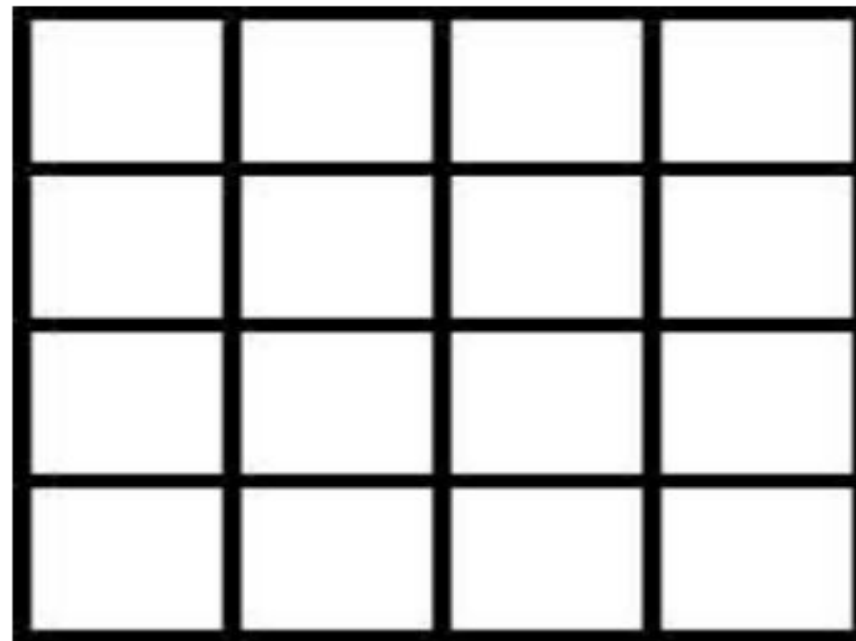
10, 10, 10, 10

20, 20, 20, 20

30, 30, 30, 30

40, 40, 40, 40

so that each horizontal
row, vertical column and
the two centre diagonals
add up to 100.



Were you able to complete the brainteaser?

How long did it take you to complete it?

Well done for trying :-)

Next we are going to continue to work from the White Rose learning. **Lesson 1 - Regular and irregular polygons.**

Please let the video guide you when tackling the activity.

1. Copy or click on the link (press Ctrl then click) <https://whiterosemaths.com/homele>

Then click Year 5

The screenshot shows the 'Home Learning' section of the White Rose Maths website. On the left, there are two text boxes: 'Summer Term Plans' with a 'Click here for more details' button, and 'Hello there, Parents and Carers!' with introductory text. Below these is a grid of 13 pink buttons labeled 'Early Years', 'Year 1', 'Year 2', 'Year 3', 'Year 4', 'Year 5', 'Year 6', 'Year 7', 'Year 8', 'Year 9', 'Year 10', and 'By Topic'. A blue arrow points to the 'Year 5' button with the word 'click' written next to it. On the right, a teal sidebar menu lists 'Home Learning' options for 'Summer Term', 'Easter Fun', and 'Home Learning' for each year from 'Early Years' to 'Year 10'.

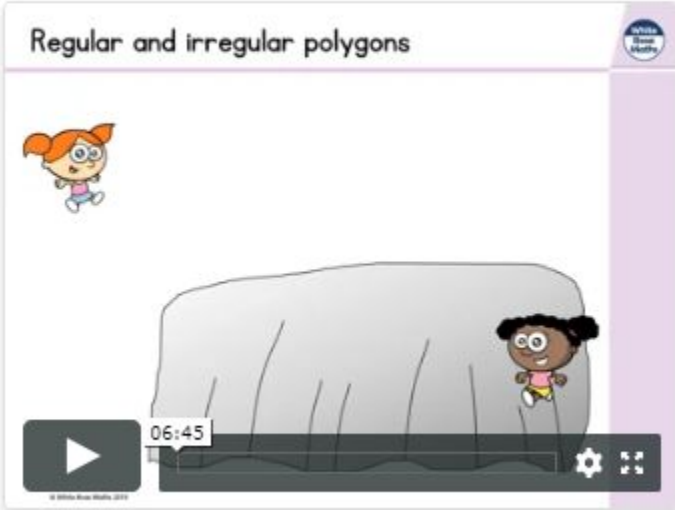
Click

First, watch the video to support your learning and use it to work on the activity sheets below.

Please note that some of the questions require you to use a ruler. Leave these questions out if you cannot print the sheet.

Lesson 1 - Regular and irregular polygons

Regular and irregular polygons



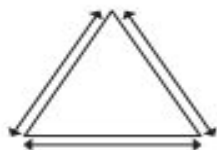
Looking for the worksheets? Contact your class teacher to check if they have a subscription to our workbooks. Alternatively, [read more here](#) or get some extra resources from [BBC Bitesize](#).

The following activities do require a ruler. If you have a laptop you can measure the lines on the screen. Just be careful not to press too hard. For question 3 you could discuss the answers with an adult ;-)

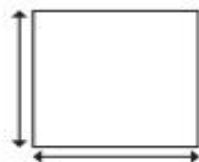
Regular and irregular polygons

1 Measure and label the sides and angles of each shape.

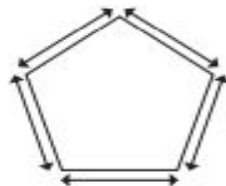
a)



b)



c)



What do you notice about your answers?

These are all examples of regular polygons.

Explain in your own words what a regular polygon is.



2 Measure and label the sides and angles of each shape.

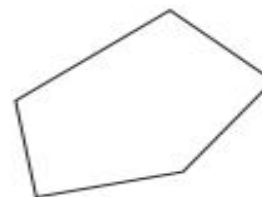
a)



b)



c)



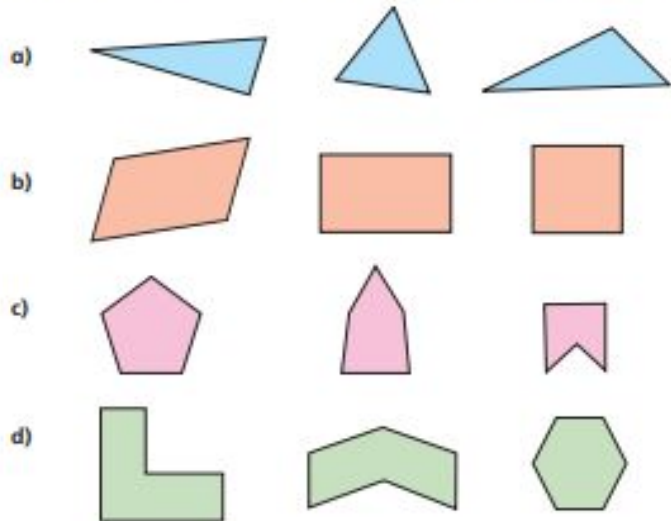
What do you notice about your answers?

These are all examples of irregular polygons.

Explain in your own words what an irregular polygon is.

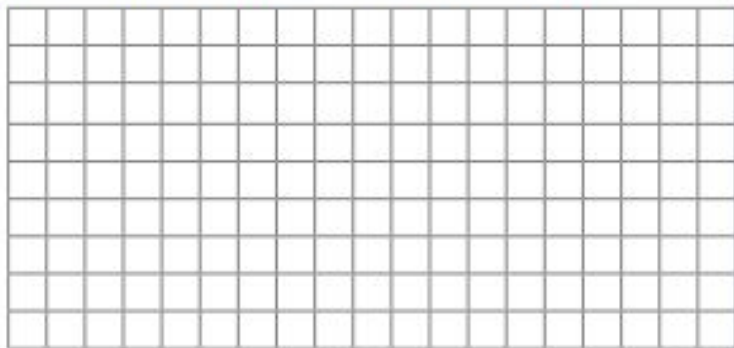


3 One polygon in each set is regular. Tick the regular polygon.



How did you know which one was regular without measuring?

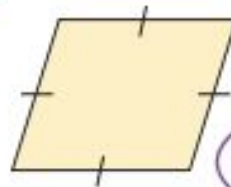
4 Draw two regular and two irregular polygons on the grid.



Compare your polygons with a partner.

What is the same and what is different?

5 Here is a rhombus.



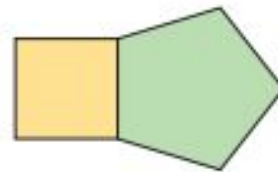
This is a regular polygon because all the sides are the same length.



Do you agree with Ron? _____

Explain your answer.

6 Eva has drawn a square and a regular pentagon.



The compound shape is regular because both of the shapes I drew were regular.



Do you agree with Eva? _____

Explain your answer.



Please click the link if you would like some more maths related to this topic.

<https://www.bbc.co.uk/bitesize/tags/zhgppg8/year-5-and-p6-lessons>


THIS IS OPTIONAL

Answers

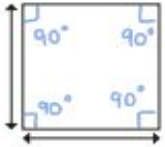
Regular and irregular polygons

1 Measure and label the sides and angles of each shape.


a)



b)



c)




Side lengths depend on how the sheets are printed.


What do you notice about your answers?
These are all examples of regular polygons.
Explain in your own words what a regular polygon is.

2 Measure and label the sides and angles of each shape.

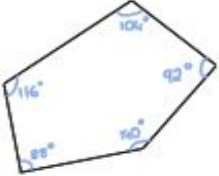
a)



b)



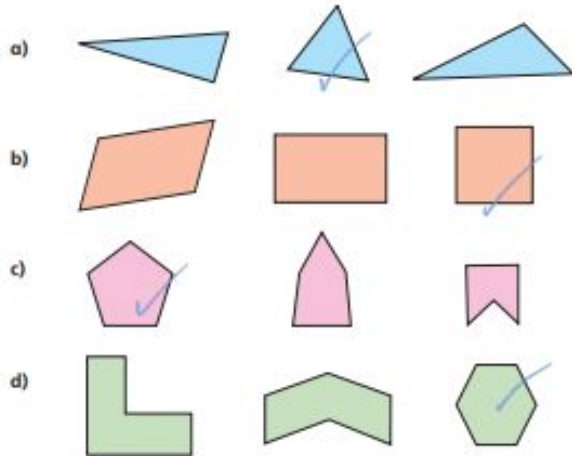
c)



What do you notice about your answers?
These are all examples of irregular polygons.
Explain in your own words what an irregular polygon is.

A polygon where the sides and angles are not all equal.

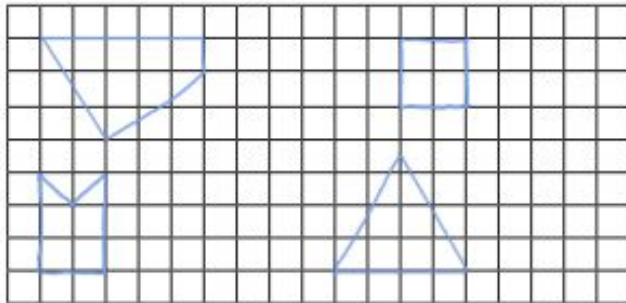
3 One polygon in each set is regular. Tick the regular polygon.



How did you know which one was regular without measuring?

4 Draw two regular and two irregular polygons on the grid.

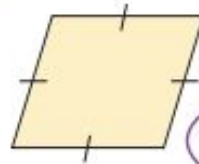
e.g.



Compare your polygons with a partner.

What is the same and what is different?

5 Here is a rhombus.



This is a regular polygon because all the sides are the same length.

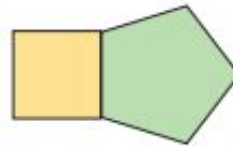


Do you agree with Ron? No

Explain your answer.

The angles are not all equal.

6 Eva has drawn a square and a regular pentagon.



The compound shape is regular because both of the shapes I drew were regular.



Do you agree with Eva? No

Explain your answer.

Brain Teaser answers

7. There are a number of different solutions - one is shown here.

10	20	30	40
20	40	10	30
30	10	40	20
40	30	20	10