Classwork 4/2/2020

Polygon Attributes

We know what a polygon is – today we will learn more about the attributes of a polygon

Good morning and hello Forth Graders from Mrs. Cronin!   Thursday 4-2-2020

Where To Find Your Work: https://lynncronin.weebly.com/   4-2-2020 Polygon Attributes

Learning Objectives: We already know what polygons are – let's learn more about Polygons

Learning Activities: Please work through the PowerPoint, play polygon game

How I will see/check your work: Email me!!

How We Communicate: email lcronin@wtps.org

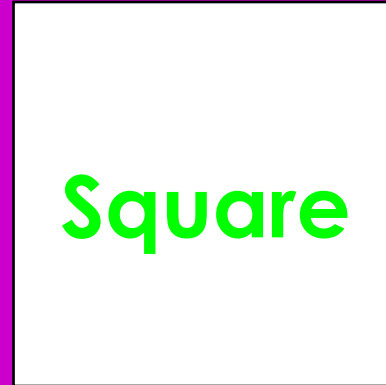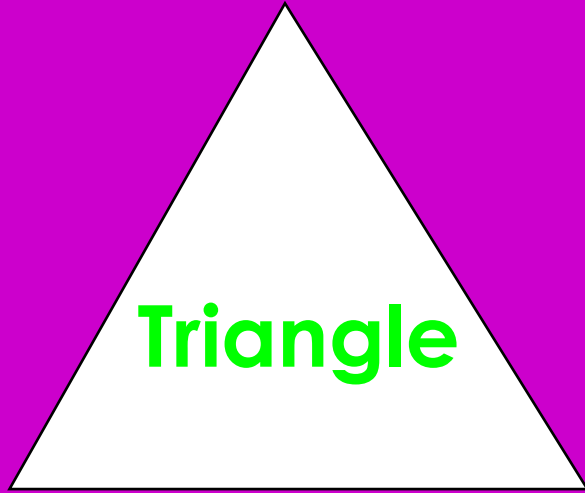3.OA.A.1, 3.OA.C.7, 3.OA.D.9 , 3.MD.C.5.b , 3.MD.C.6, 3.MD.C.7.b, 3.MD.C.7.d

polygon

a special kind of shape that is 2-D, has only straight lines and is closed.
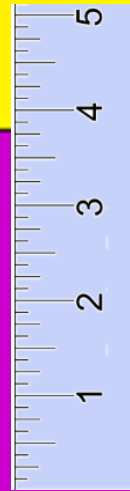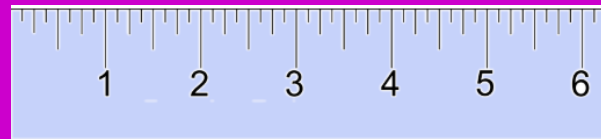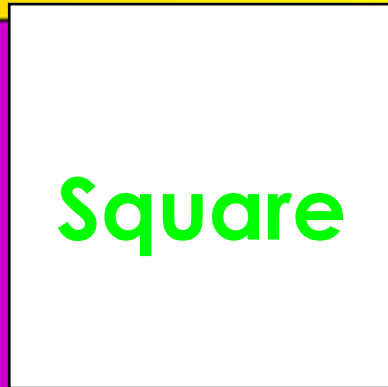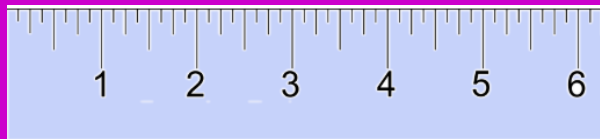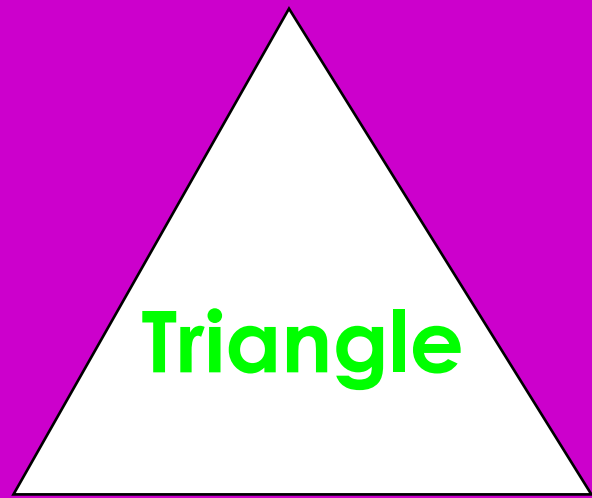
attribute

a description – attributes of a polygon include: side size, equality of sides, angles, and vertices

Side Length.

Triangle

Square

Star
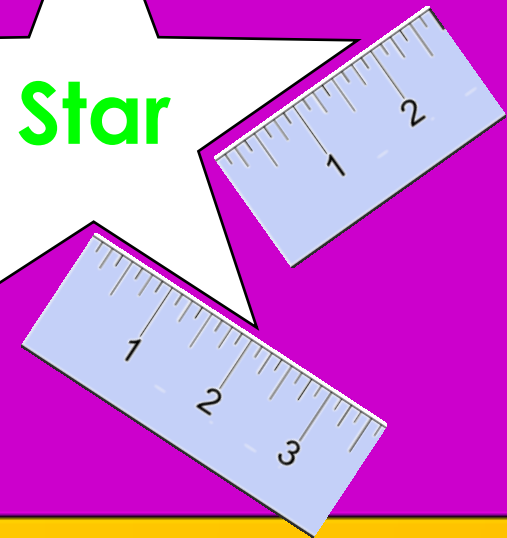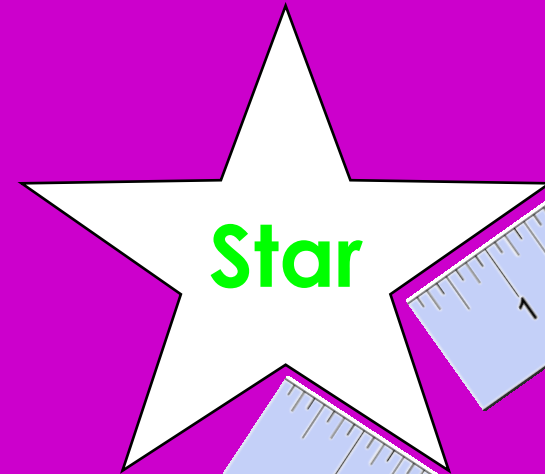
Each polygon is made with straight lines.
One way to measure a polygon is to measure the length of its sides.

Side Length.
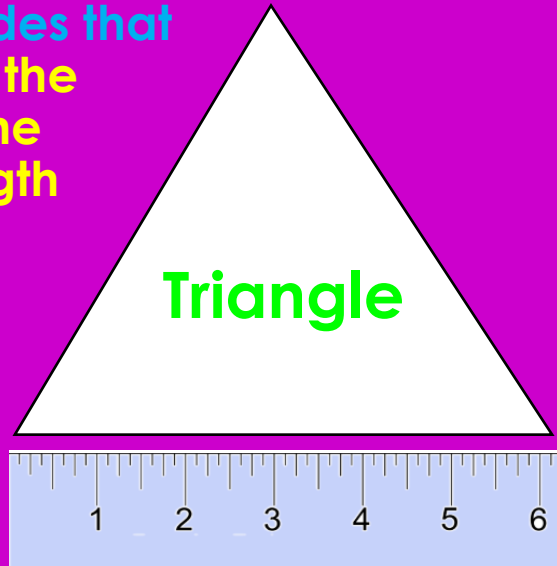
Square

Triangle

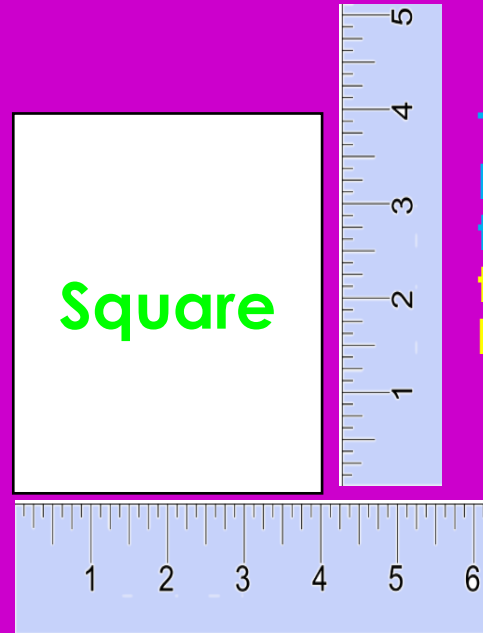**Star**

A ruler will help us do that!

Most of the time we don't actually measure the side lengths of a shape, we just count how <u>many</u> sides are the same length.

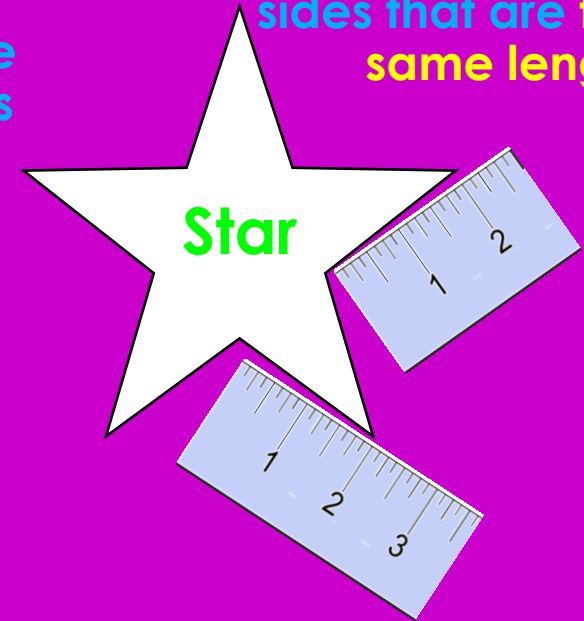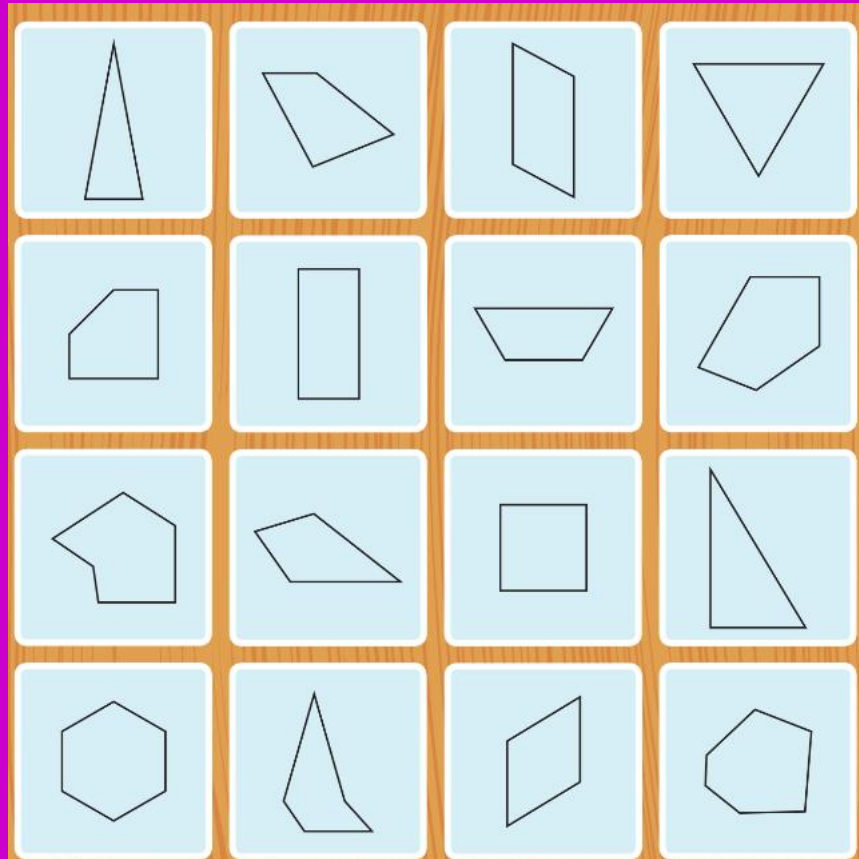The triangle has 3 sides that are the same length

Triangle

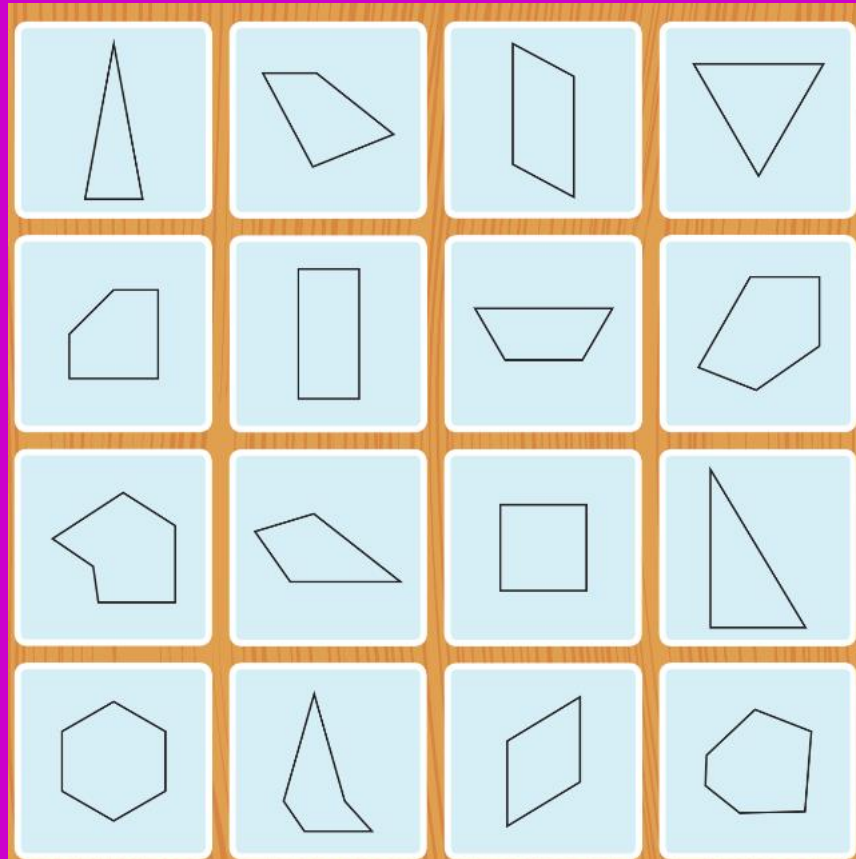This square has 4 sides that are the same length

Square

This star has 10 sides that are the same length

Star

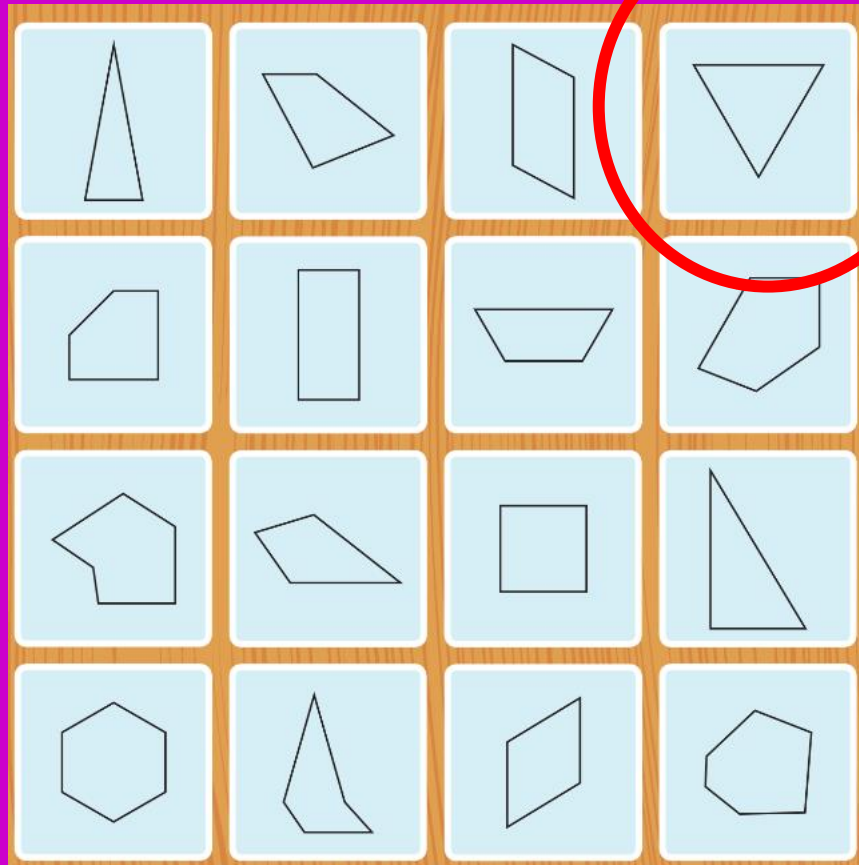# When we play shape capture we will see a screen that looks like this:

When we play shape capture we will see a screen that looks like this:
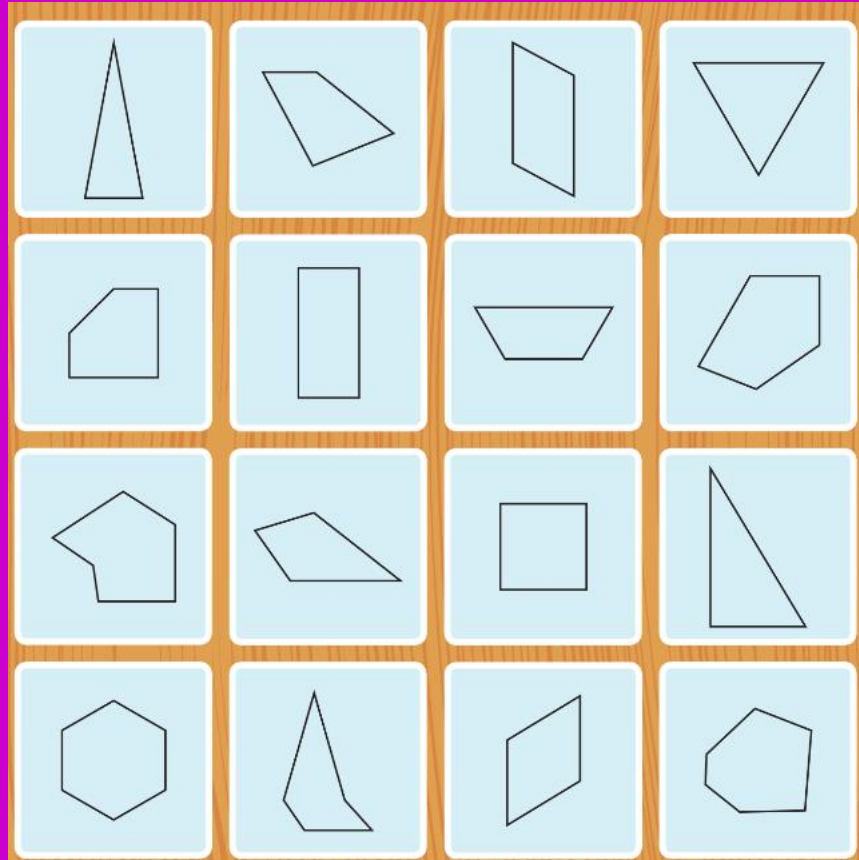

Can you find a shape that has three sides that are the same length?
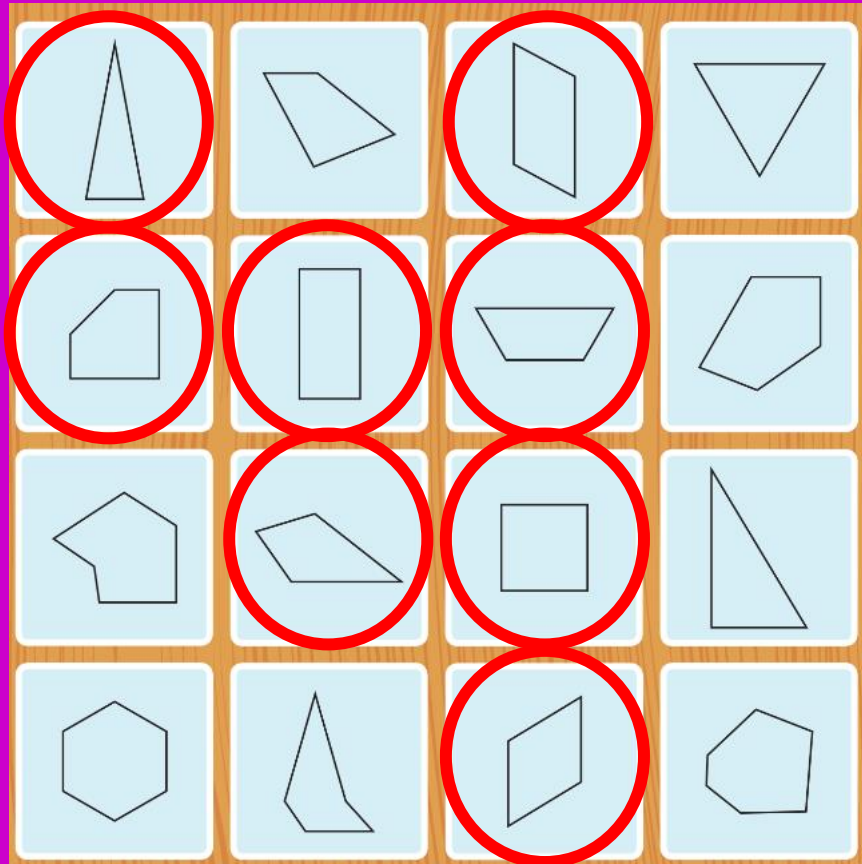
Perfect!

The equilateral triangle has three sides that are the same length!
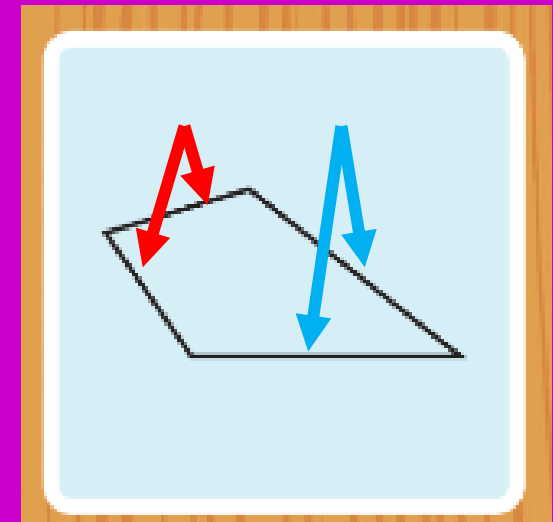
Try another one…

Can you find shapes that have two sides that are the same length?
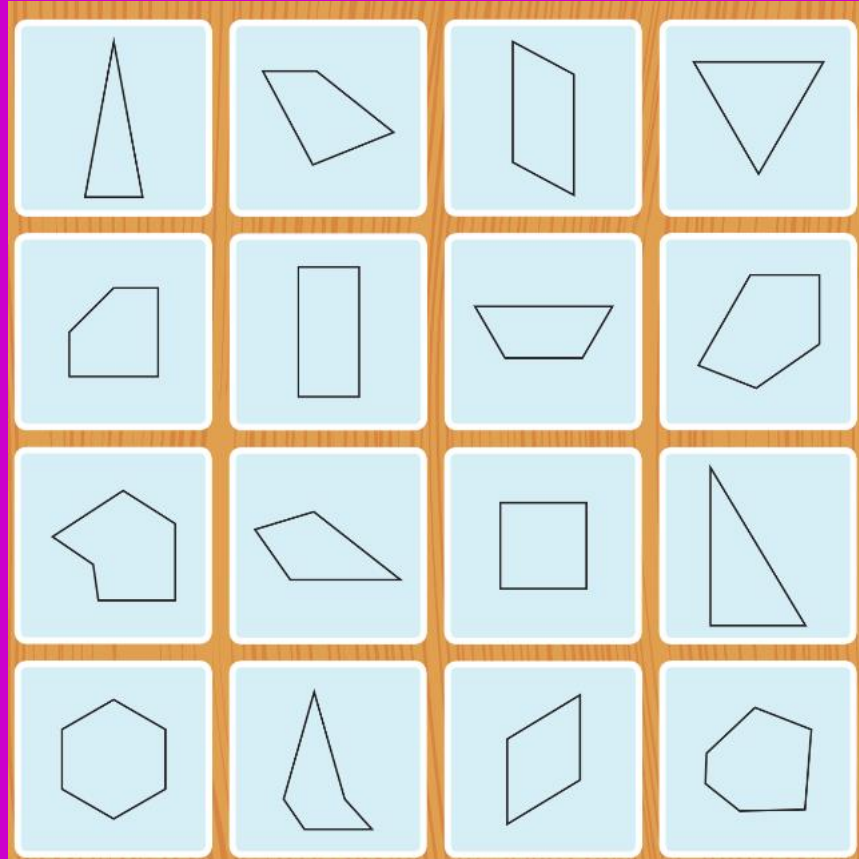
Try another one…

There are a lot of them!

Some even have two pair that are the same. The kite for example has the two top the same plus the two bottom are also the same.
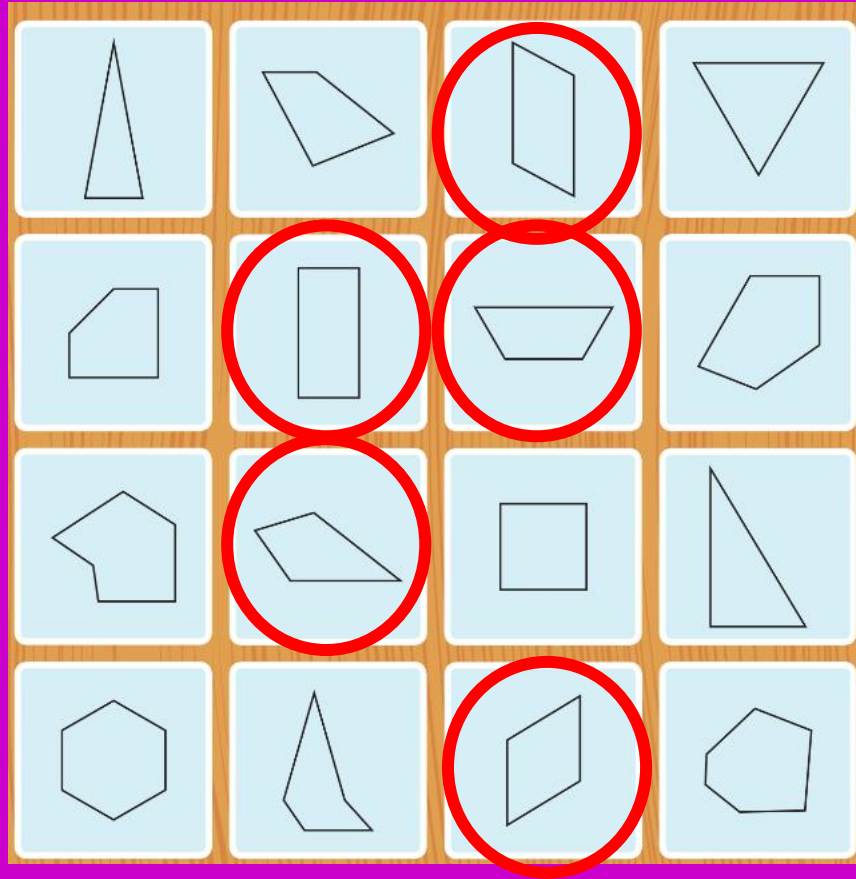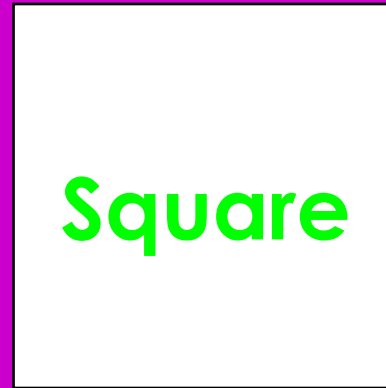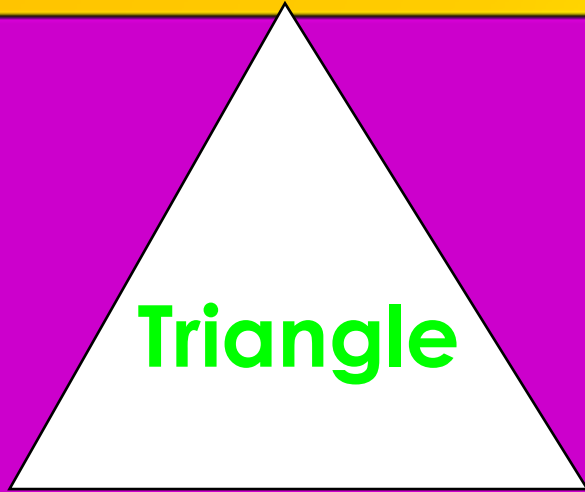
Try this one!

Can you find all the shapes that have two pair of same side lengths (like the kite)

Try this one!

Can you find all the shapes that have two pair of same side lengths (like the kite)

Let's look at another attribute

Triangle

Square

Star

Vertices

That's the spot where sides meet on a shape. You could also call it a corner or a point, but in math we call it a vertices.
Vertices is the word that we use for more than one. One is called a vertex.

Vertex   Vertices

I love this word!
It might be my favorite math word!
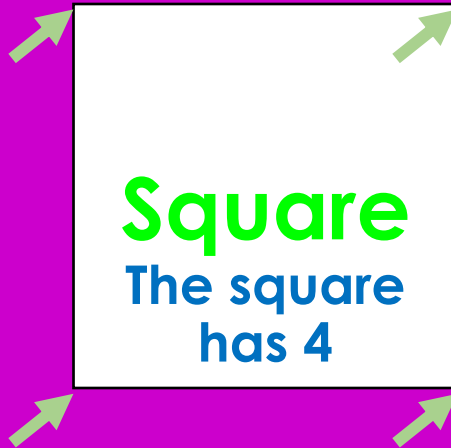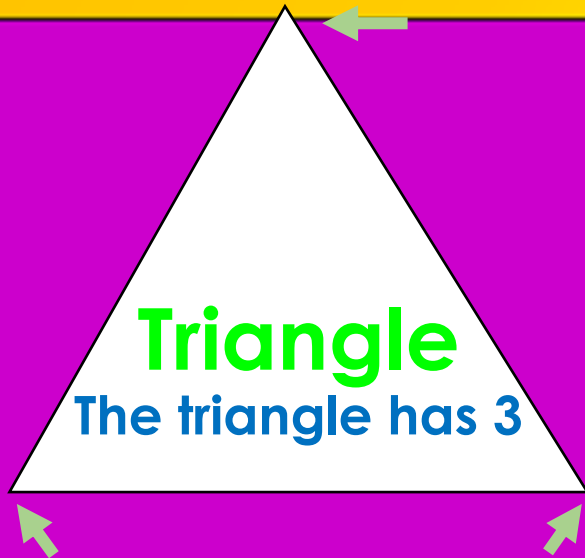One point on a shape is a vertex
Click below to hear it:
https://www.youtube.com/watch?v=2HnvWbCMnF4

More than one point on a shape is a vertices
Click these videos to learn how to say it:
https://www.youtube.com/watch?reload=9&v=sJaYtraUu0E

Each shape has different numbers of vertices.

Triangle
The triangle has 3

Square
The square has 4

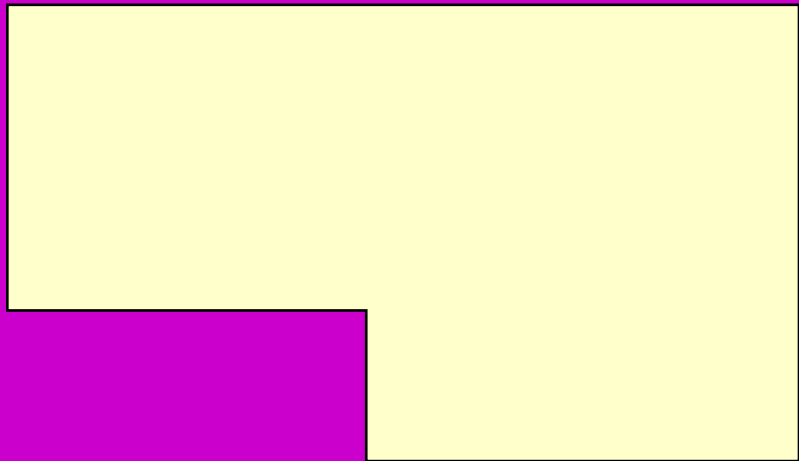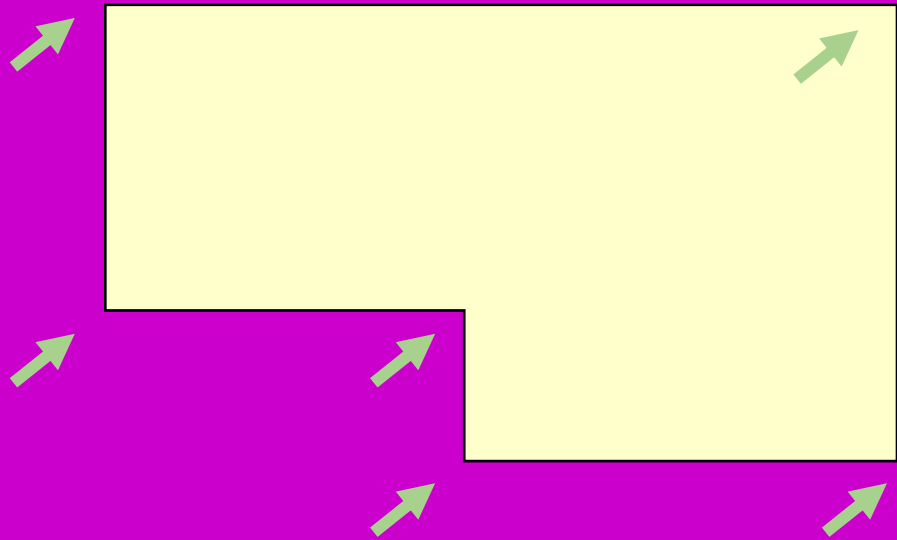**Star**
The star has 10!

Vertices

That's the spot where sides meet on a shape. You could also call it a corner or a point, but in math we call it a vertices.

(One point on a star is called a vertex. All the points are called vertices.)
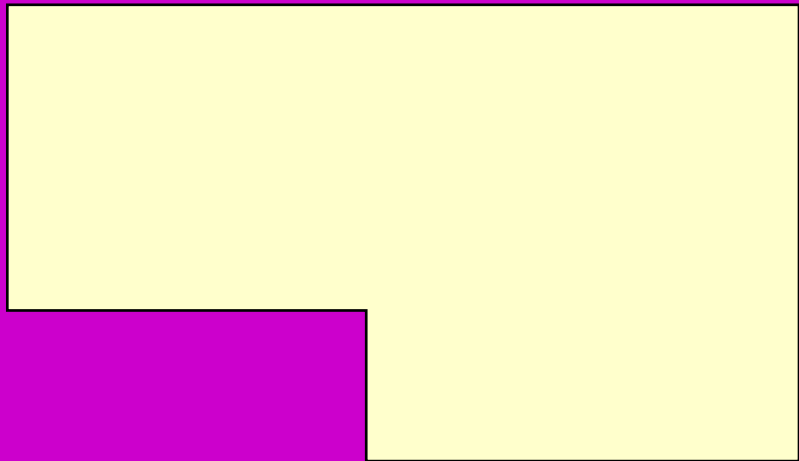
How many vertices does this shape have?
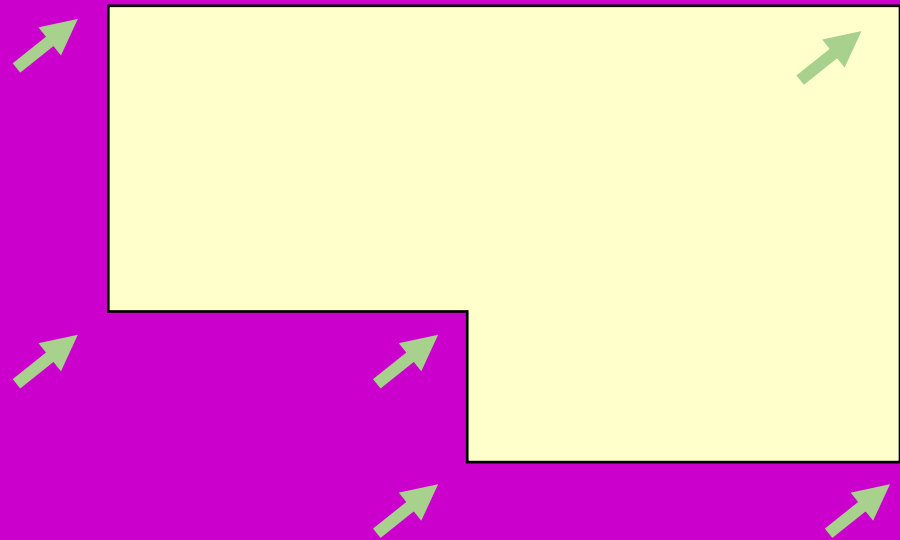
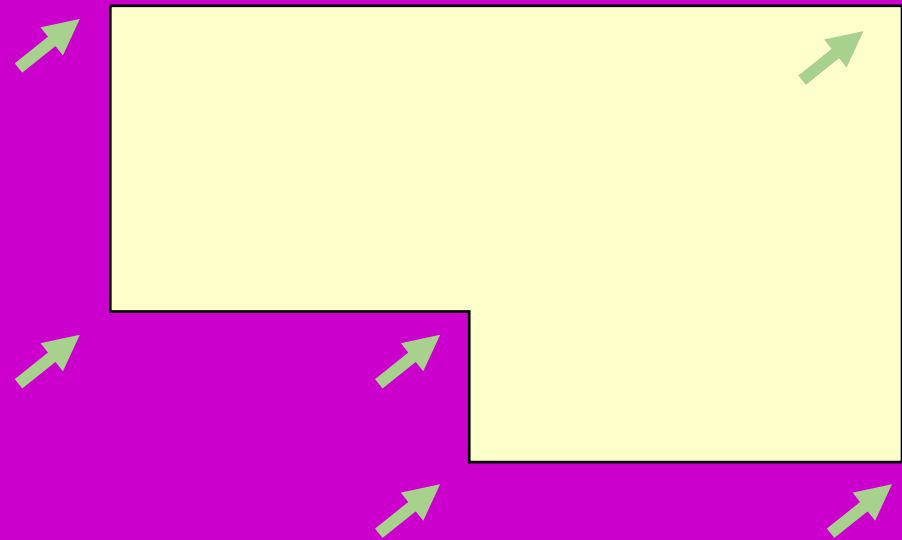# How many vertices does this shape have?

6!

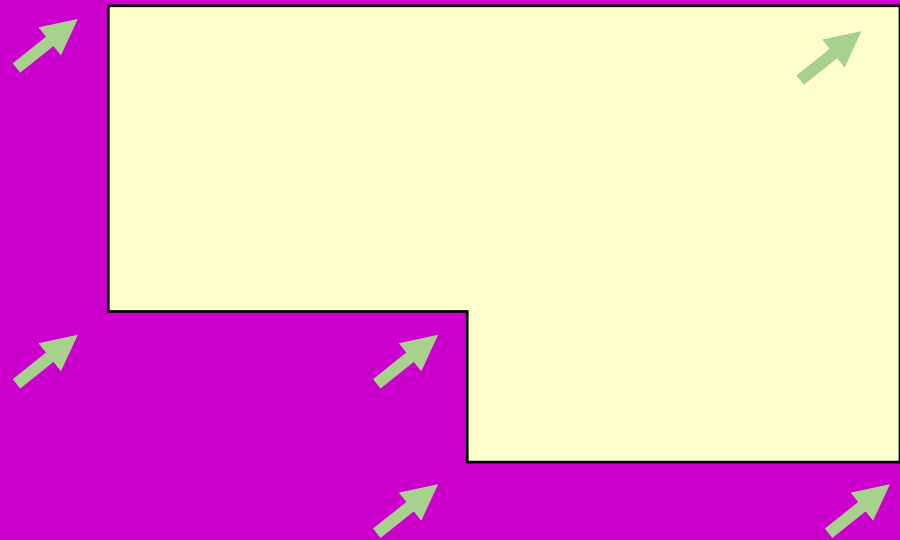# Is this shape a polygon?
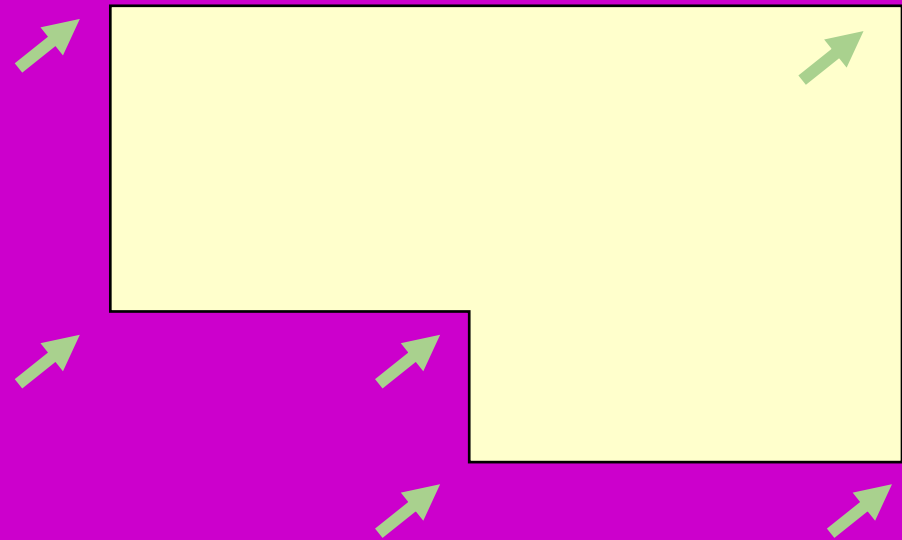
Is this shape a polygon?

Does it follow the polygon rules?

- Is it 2-D?
- Is it closed?
- Are the lines straight?

Is this shape a polygon?

Does it follow the polygon rules?

- ✓ Is it 2-D?
- ☐ Is it closed?
- ☐ Are the lines straight?

Is this shape a polygon?

Does it follow the polygon rules?

☑ **Is it 2-D?**
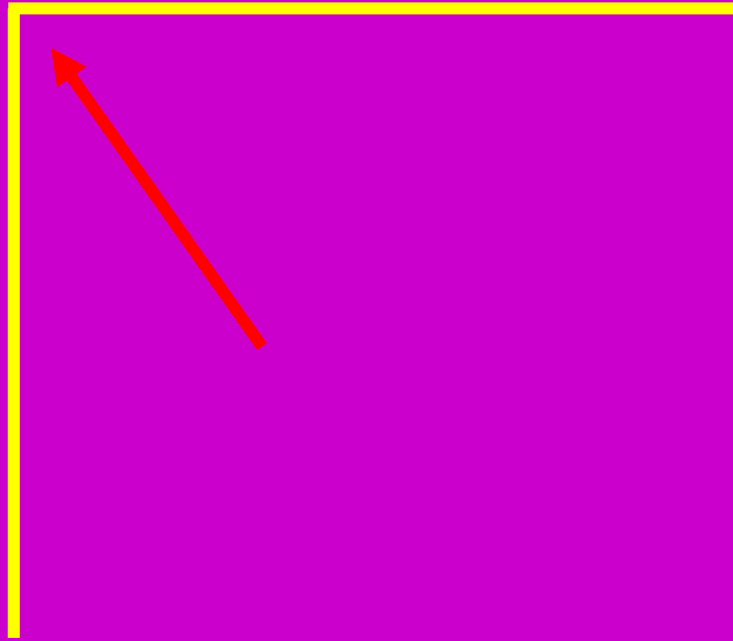☑ **Is it closed?**
☐ **Are the lines straight?**

Is this shape a polygon?

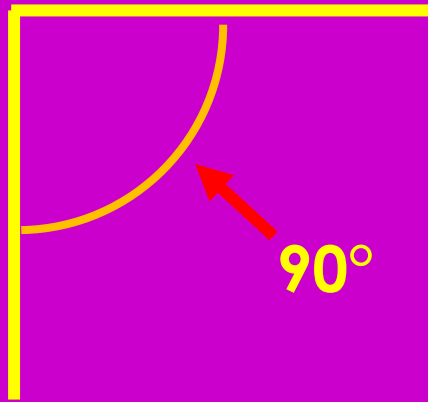

Does it follow the polygon rules?

☑ **Is it 2-D?**
☑ **Is it closed?**
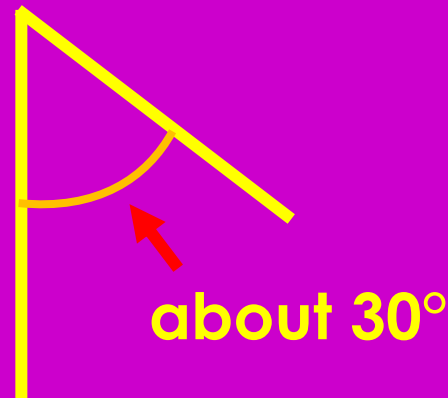☑ **Are the lines straight?**

And finally, what is an angle?

Shapes are made with lines that touch at the corners.

The angle made by those two lines is measured by how far apart they are
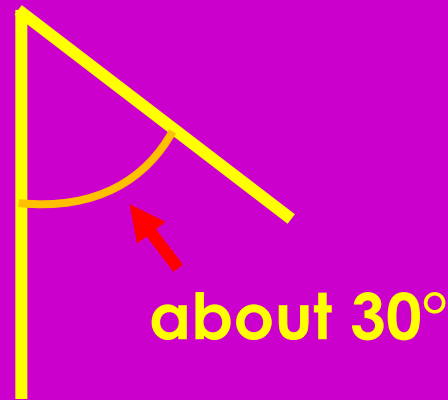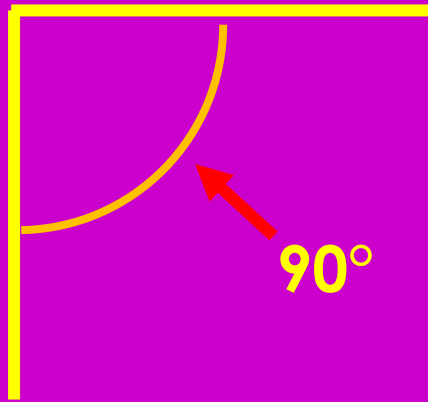
90°

about 30°

The first angle is a right angle. The measure from one line to another is 90° (90 degrees)
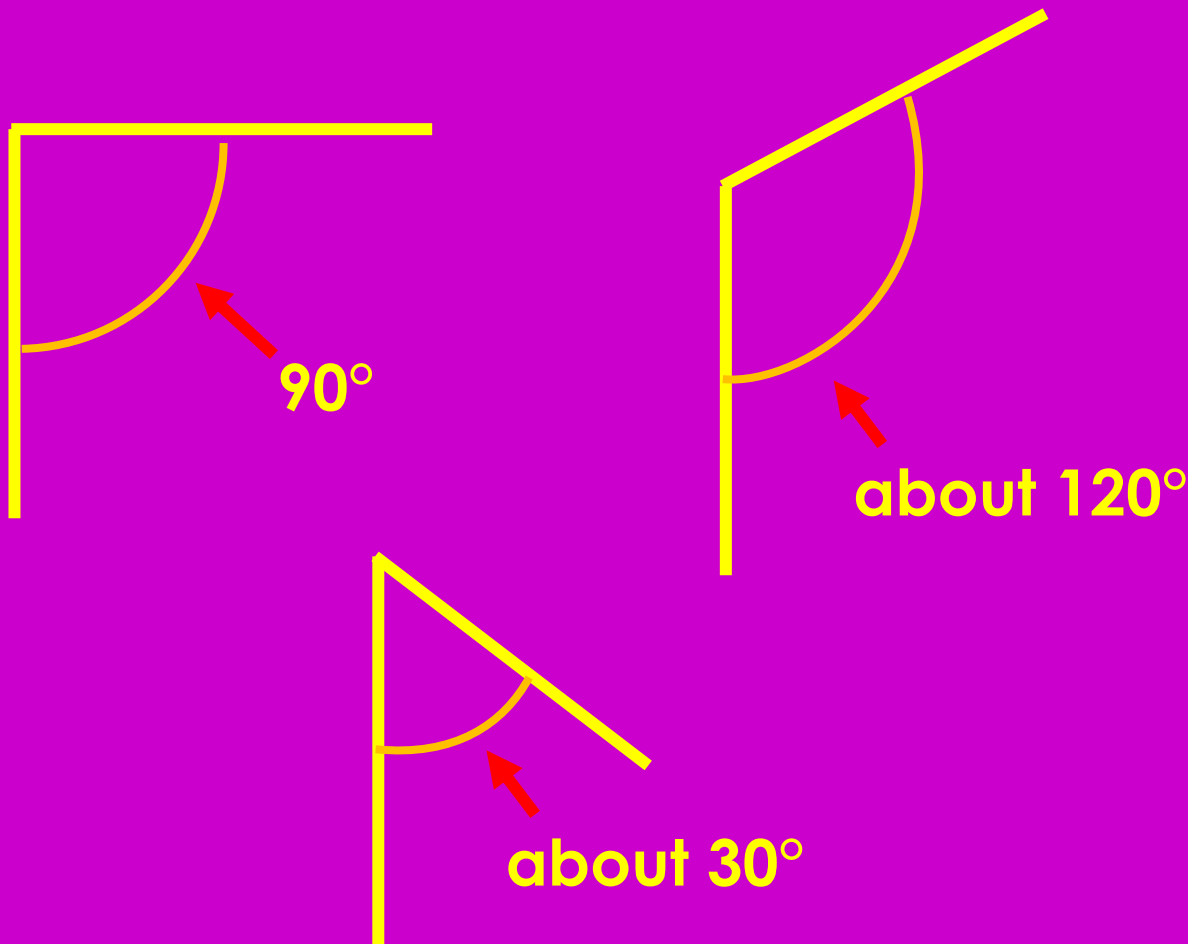
The second angle is less than 90° - it is probably about 30°

The angle made by those two lines is measured by how far apart they are

90°

about 30°

You could think of an angle as the opposite side of the vertex.

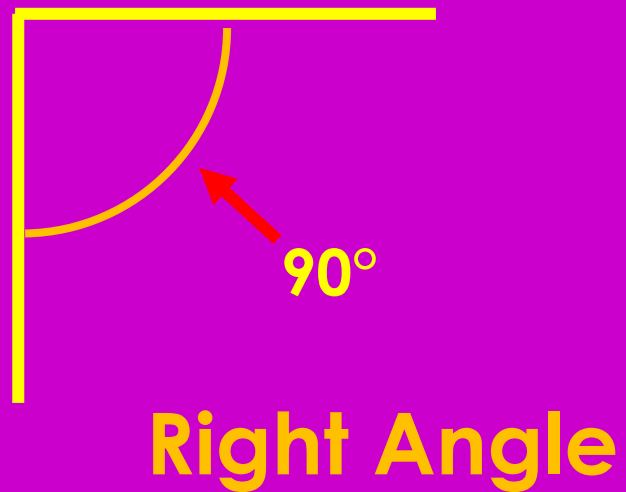# There are three types of angles.

90°

about 120°

about 30°

Right – a square angle is 90°. It is the same as the corner of a paper or the corners on a square.

Obtuse – an obtuse angle is bigger than a square angle.

Acute – an acute angle is smaller than a square angle. (I think of it as a cute little angle!
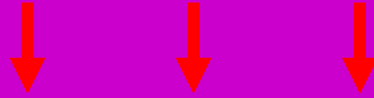
We will review angles later!

90°

Right Angle

Right now the most important angle is a right angle.

A right angle is 90°

Let's Play
Shape Capture!

Click on these words

https://connected.mcgraw-hill.com/em4t/emgames.game.do?gameId=X3S9JRLBFMO5J3ZF65DPZ51CMM&familyId=1J9KPPZFS5PB8HP375W1H51Y78&gameType=single-player&categoryId=JC8PY2PS1XEHKKB1K49LWQR9CE&grade=3

email me to tell me how you did on Shape Capture!

lcronin@wtps.org