

# Lesson 4 Regular and Irregular Polygons (RECAP)

## Polygon

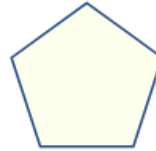
A **polygon** is a **plane** shape (two-dimensional) with straight sides. Examples include triangles, quadrilaterals, pentagons, hexagons and so on.

## Regular

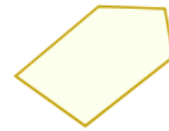
A "Regular Polygon" has:

- all **sides** equal and
- all **angles** equal.

Otherwise it is **irregular**.



Regular Pentagon



Irregular Pentagon

Here we look at **Regular Polygons** only.

*Definition of*

## Irregular

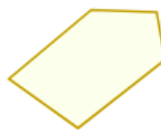
Not regular. Can have many meanings in mathematics.

A **regular shape** has all sides equal and all angles equal.

So an **irregular shape** has at least one side different to the other sides, or angle different to the other angles.

This is an irregular pentagon:

See: [Regular](#)



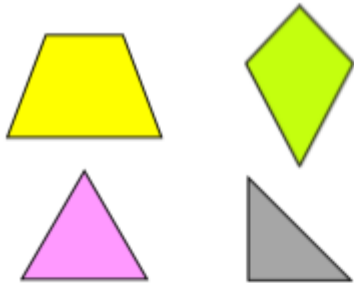
Choose a task that you feel confident in completing. 3 options that you have are developing, expected and greater depth.

## Developing

### Regular and Irregular Polygons

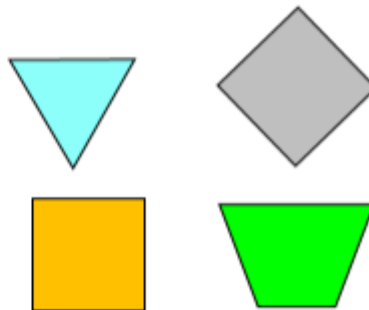
### Regular and Irregular Polygons

1a. Circle the regular polygon.



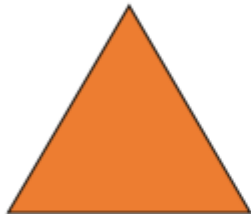
VF

1b. Circle the irregular polygon.



VF

2a. Use a ruler and a protractor to decide whether this is a regular or irregular triangle.



VF

2b. Use a ruler and a protractor to decide whether this is a regular or irregular quadrilateral.



VF

3a. True or false?  
This quadrilateral is a regular polygon.



VF

3b. True or false?  
This quadrilateral is a regular polygon.



VF

4a. Draw a regular triangle. Measure the length of each side and the size of each angle to make sure that they are all the same.



VF

4b. Draw an irregular triangle. Measure the length of each side and the size of each angle to make sure that they are not all the same.

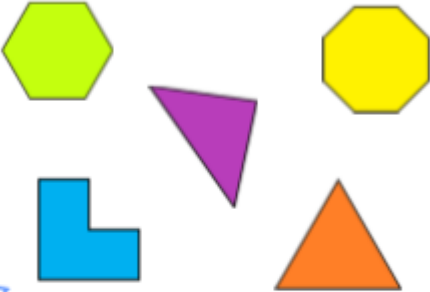
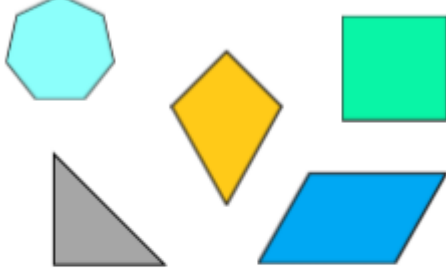
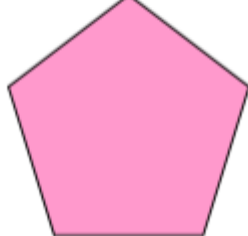

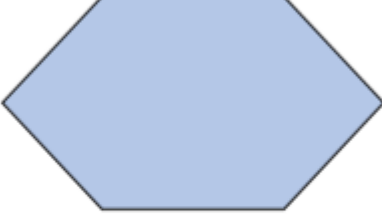



VF

# Expected

## Regular and Irregular Polygons

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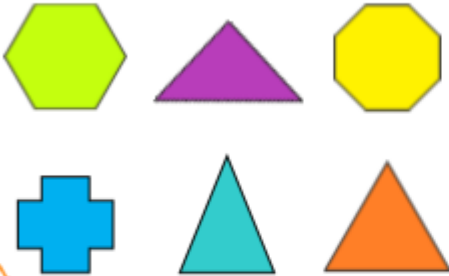
|  |   |
|--|---|
| <p>5a. Circle the regular polygons.</p>  <p>☆ VF</p>  | <p>5b. Circle the irregular polygons.</p>  <p>☆ VF</p>  |
| <p>6a. Identify the name of this shape. Use a ruler and a protractor to decide whether it's a regular or irregular polygon.</p>  <p>☆ VF</p> | <p>6b. Identify the name of this shape. Use a ruler and a protractor to decide whether it's a regular or irregular polygon.</p>  <p>☆ VF</p> |
| <p>7a. True or false?<br/>This is a regular hexagon.</p>  <p>☆ VF</p>   | <p>7b. True or false?<br/>This is an irregular pentagon.</p>  <p>☆ VF</p>   |
| <p>8a. Draw a regular hexagon. Measure the length of each side and the size of each angle to make sure that they are equal.</p> <p>☆ VF</p>  | <p>8b. Draw an irregular hexagon. Measure the length of each side and the size of each angle to make sure that they are not all the same.</p> <p>☆ VF</p>   |

## Greater Depth

### Regular and Irregular Polygons

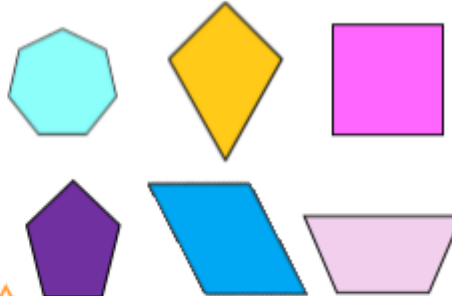
### Regular and Irregular Polygons

9a. Circle the regular polygons.



VF

9b. Circle the irregular polygons.



VF

10a. Identify the name of this shape. Use a ruler and a protractor to decide whether it's a regular or irregular polygon.



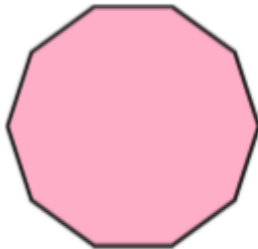
VF

10b. Identify the name of this shape. Use a ruler and a protractor to decide whether it's a regular or irregular polygon.



VF

11a. True or false?  
This is an irregular decagon.



VF

11b. True or false?  
This is a regular decagon.



VF

12a. Draw a regular octagon. Measure the length of each side and the size of each angle to make sure that they are equal.



VF

12b. Draw an irregular octagon. Measure the length of each side and the size of each angle to make sure that they are not all the same.



VF