

# Homework/Extension

## Step 8: Regular and Irregular Polygons

### National Curriculum Objectives:

Mathematics Year 5: (5G2b) [Distinguish between regular and irregular polygons based on reasoning about equal sides and angles](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Complete the table. Using regular and irregular triangles and quadrilaterals.

**Expected** Complete the table. Using regular and irregular triangles and quadrilaterals, pentagons and hexagons.

**Greater Depth** Complete the table. Includes all polygons up to decagons.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Tick the correct polygons in the correct column. Using regular and irregular triangles and quadrilaterals.

**Expected** Tick the correct polygons in the correct column. Using regular and irregular triangles and quadrilaterals, pentagons and hexagons.

**Greater Depth** Tick the correct polygons in the correct column. Includes all polygons up to decagons.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Identify 3 irregular quadrilaterals using the given shape. Simple combinations of lines used.

**Expected** Identify 3 irregular pentagons using the given shape. Simple combinations of lines used.

**Greater Depth** Identify 3 irregular octagons using the given shape. Complex combinations of lines used.

More [Year 5 Properties of Shapes](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Regular and Irregular Polygons

1. Using your knowledge of regular and irregular polygons, complete the table below. Use a ruler to draw any shapes needed.

	Irregular Triangle	Regular Quadrilateral	Irregular Quadrilateral
<b>Number of sides</b>			
<b>Draw the shape</b>			



VF  
HW/Ext

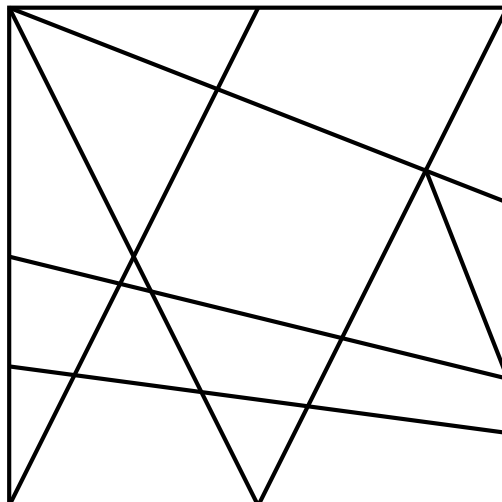
2. Using a protractor and ruler to help you, tick the polygons that are placed in the correct columns below.

Irregular Polygon	Regular Polygon



VF  
HW/Ext

3. Colour different pieces of the square to create 3 different irregular quadrilaterals.



RPS  
HW/Ext

# Regular and Irregular Polygons

4. Using your knowledge of regular and irregular polygons, complete the table below. Use a ruler to draw any shapes needed.

	Irregular Hexagon	Regular Pentagon	Regular Quadrilateral
<b>Number of sides</b>			
<b>Draw the shape</b>			



VF  
HW/Ext

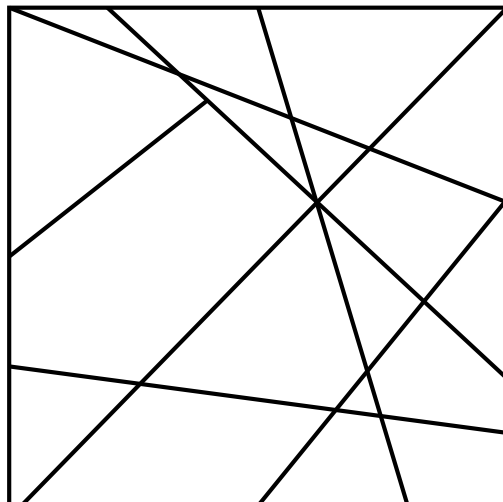
5. Using a protractor and ruler to help you, tick the polygons that are placed in the correct columns below.

Irregular Polygon	Regular Polygon



VF  
HW/Ext

6. Colour different pieces of the square to create 3 different irregular pentagons.



RPS  
HW/Ext

# Regular and Irregular Polygons

7. Using your knowledge of regular and irregular polygons, complete the table below. Use a ruler to draw any shapes needed.

	Irregular Heptagon	Regular Decagon	Irregular Octagon	Irregular Decagon
Number of sides				
Draw the shape				



VF  
HW/Ext

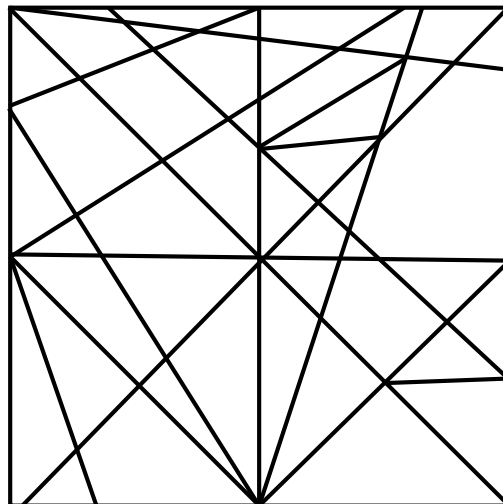
8. Using a protractor and ruler to help you, tick the polygons that are placed in the correct columns below.

Irregular Polygon	Regular Polygon



VF  
HW/Ext

9. Colour different pieces of the square to create 3 different irregular octagons.



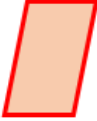


RPS  
HW/Ext

# Homework/Extension Regular and Irregular Polygons

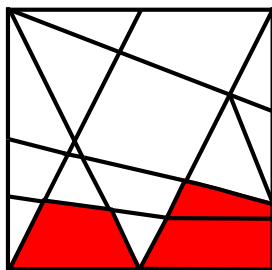
## Developing

1. **Accept any shapes that meet the criteria provided.**

	Irregular Triangle	Regular Quadrilateral	Irregular Quadrilateral
Number of sides	<b>3</b>	<b>4</b>	<b>4</b>
Draw the shape			




2. **A, C, D, H**

3. **Various possible answers, for example:**



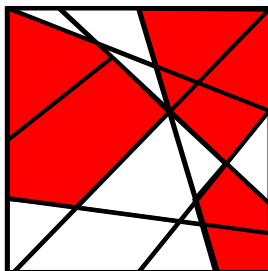
## Expected

4. **Accept any shapes that meet the criteria provided.**

	Irregular Hexagon	Regular Pentagon	Regular Quadrilateral
Number of sides	<b>6</b>	<b>5</b>	<b>4</b>
Draw the shape			

5. **B, C, D, F, G**





6. **Various possible answers, for example:**



# Homework/Extension Regular and Irregular Polygons

## Greater Depth

7. **Accept any shapes that meet the criteria provided.**

	Irregular Heptagon	Regular Decagon	Irregular Octagon	Irregular Decagon
Number of sides	<b>7</b>	<b>10</b>	<b>8</b>	<b>10</b>
Draw the shape				

8. **B, C, E, F, H**

9. **Various possible answers, for example:**

