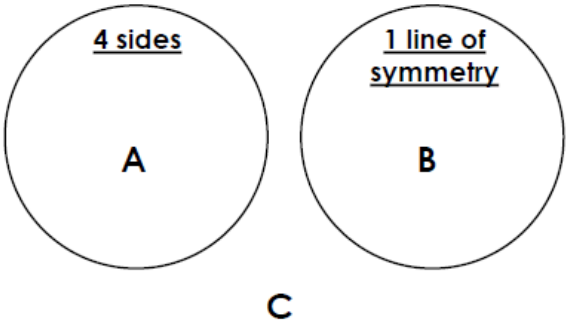
Recognise and Describe 2D Shapes

1a. Draw a shape which could represent each letter in the Venn diagram below.



PS

2a. Always, sometimes, never?

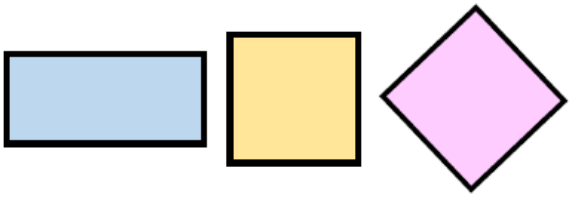
Triangles have 3 sides of equal length.

Explain your answer and draw shapes to prove it.

Remember to use a ruler.

R

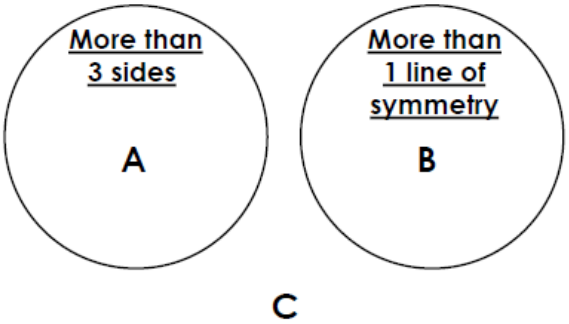
3a. Explain what is similar about these shapes.



R

Recognise and Describe 2D Shapes

1b. Draw a shape which could represent each letter in the Venn diagram below.



PS

2b. Always, sometimes, never?

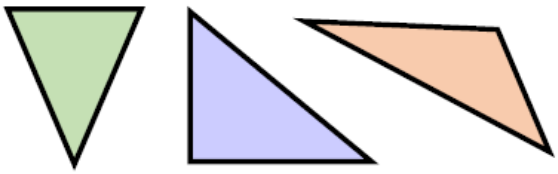
4-sided shapes have 4 lines of symmetry.

Explain your answer and draw shapes to prove it.

Remember to use a ruler.

R

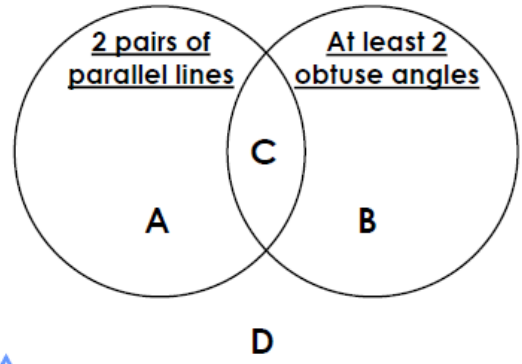
3b. Explain what is similar about these shapes.



R

Recognise and Describe 2D Shapes

4a. Draw a shape which could represent each letter in the Venn diagram below.



PS

5a. Always, sometimes, never?

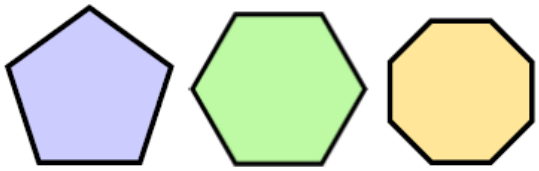
Quadrilaterals have 4 right angles.

Explain your answer and draw shapes to prove it.

Remember to use a ruler.

R

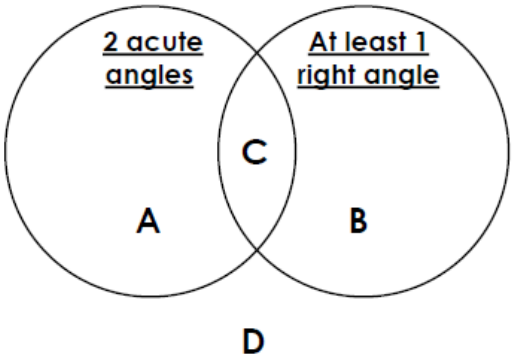
6a. Explain what is similar about these shapes.



R

Recognise and Describe 2D Shapes

4b. Draw a shape which could represent each letter in the Venn diagram below.



PS

5b. Always, sometimes, never?

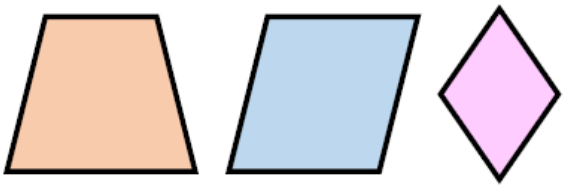
Quadrilaterals have 2 pairs of parallel lines.

Explain your answer and draw shapes to prove it.

Remember to use a ruler.

R

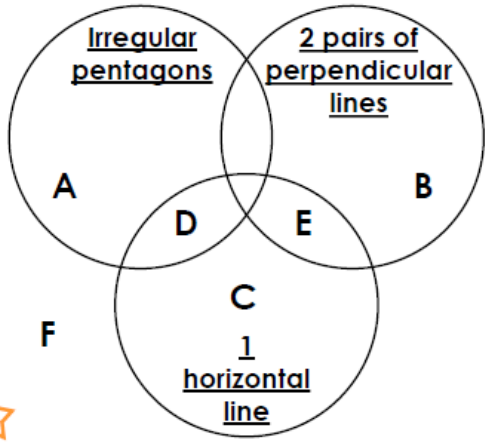
6b. Explain what is similar about these shapes.



R

Recognise and Describe 2D Shapes

7a. Draw a shape which could represent each letter in the Venn diagram below.



PS

8a. Always, sometimes, never?

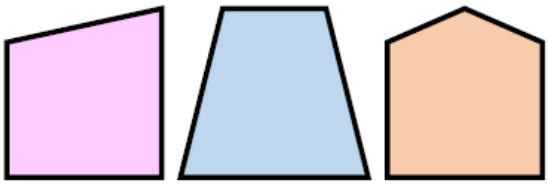
Hexagons have no perpendicular lines.

Explain your answer and draw shapes to prove it.

Remember to use a ruler.

R

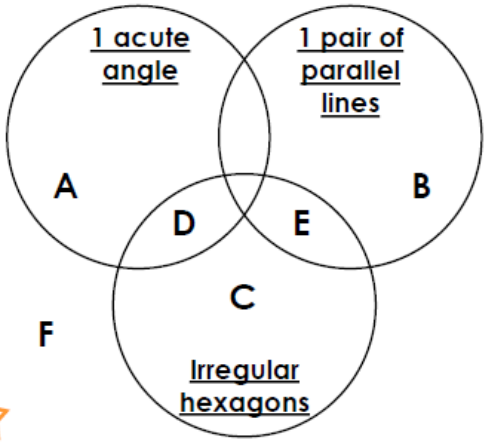
9a. Explain what is similar about these shapes.



R

Recognise and Describe 2D Shapes

7b. Draw a shape which could represent each letter in the Venn diagram below.



PS

8b. Always, sometimes, never?

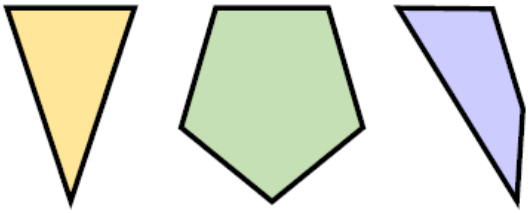
Octagons have 2 vertical and 2 horizontal lines.

Explain your answer and draw shapes to prove it.

Remember to use a ruler.

R

9b. Explain what is similar about these shapes.



R

Reasoning and Problem Solving
Recognise and Describe 2D Shapes

Developing

1a. Various possible answers, for example: A – square, B – isosceles triangle, C – circle

2a. Sometimes, because some triangles have 3 sides of equal length, such as equilateral triangles. However some triangles do not have 3 sides of equal length, such as scalene triangles.

3a. They are all rectangles, (including squares). They all have 4 sides, 4 corners and 4 internal angles.

Expected

4a. Various possible answers, for example: A – rectangle, B – pentagon, C – parallelogram, D – right-angle triangle

5a. Sometimes, because some quadrilaterals have 4 right angles, such as a square or rectangle. However some quadrilaterals do not have 4 right angles, such as a trapezium or a parallelogram.

6a. They all have more than 4 sides. They all have sides of equal length. They only have obtuse angles. The number of sides they have matches the number of lines of symmetry they have.

Greater Depth

7a. Various possible answers, for example: A – irregular pentagon without 2 pairs of perpendicular lines, B – irregular hexagon with 2 pairs of perpendicular lines, C – right-angle triangle with a horizontal base, D – irregular pentagon with a horizontal base and without 2 pairs of perpendicular lines, E – irregular heptagon with 2 pairs of perpendicular lines and 1 horizontal line, F – irregular octagon without 2 pairs of perpendicular lines or 1 horizontal line

8a. Sometimes, because a regular hexagon does not have perpendicular lines but an irregular hexagon might have them.

9a. They all have only one pair of parallel lines. They all have a horizontal base in this orientation.

Reasoning and Problem Solving
Recognise and Describe 2D Shapes

Developing

1b. Various possible answers, for example: A – rectangle, B – square, C – right-angle triangle

2b. Sometimes, because some 4-sided shapes have 4 lines of symmetry, such as a square. However some 4-sided shapes do not have 4 lines of symmetry, such as a rectangle.

3b. They are all triangles. They all have 3 sides, 3 corners and 3 internal angles.

Expected

4b. Various possible answers, for example: A – trapezium, B – square, C – right-angle triangle, D – hexagon

5b. Sometimes, because some quadrilaterals have 2 pairs of parallel lines, such as a parallelogram or a rectangle. However some quadrilaterals do not have 2 pairs of parallel lines, such as a trapezium.

6b. They are all quadrilaterals. They all have 2 acute and 2 obtuse angles, and no right angles.

Greater Depth

7b. Various possible answers, for example: A – irregular pentagon without 1 pair of parallel lines, B – trapezium, C – irregular hexagon without 1 acute angle or 1 pair of parallel lines, D – irregular hexagon with 1 acute angle and without 1 pair of parallel lines, E – irregular hexagon with 1 pair of parallel lines and without 1 acute angle, F – heptagon

8b. Sometimes, because a regular or irregular octagon could have 2 vertical and 2 horizontal lines but it depends on the orientation of the shape.

9b. They have no right angles and therefore no perpendicular lines. They also have no parallel lines. They all have a horizontal line at the top in this orientation.