**Year 6: MEASUREMENT**

*Solve problems, recognising that shapes with the same areas can have different perimeters and vice versa*

1. Alice’s garden was square-shaped. Each side measured **6 m**. Work out the perimeter and area of Alice’s garden.
2. John had a piece of rectangular paper. The length was **26 cm** and the width was **10 cm**. Calculate the perimeter and area of the paper.
3. John said, “If I cut my paper in half along its length and then put the two new rectangles back together to make a rectangle **13cm** by **20cm**, the area will be the same as in the original rectangle.” Is he correct? Explain your answer.
4. A rectangle has an area of **36 cm2**. What could the length and width of the rectangle be?
5. Two rectangular gardens each have a perimeter of **28 m**. Each garden has different dimensions. What could the area of each garden be? Explain your answer.
6. Look at the compound shape shown below. Luke drew a rectangular shape with exactly the same area. What could be the length and width of Luke’s shape? (drawing not to scale)

 