Max’s Magnificent Geometry Garden

Learning objective: To identify, compare, and order angles and classify 2D shapes based on their geometric properties.

Help Max the monkey organise his garden. Read the descriptions of his flowerbeds and answer the questions below. Remember to use your knowledge of acute, obtuse, and right angles.

Max the monkey is planting a new garden. He has designed four special flowerbeds, each shaped like a different 2D shape. The first bed is a square where every corner is a right angle. The second bed is a triangle with one very wide angle that is larger than a right angle. The third bed is a rhombus, which has two angles smaller than a right angle and two that are larger. Max is very proud of his garden and wants to make sure he has enough space for his plants.

Word bank: acute · obtuse · right angle · parallel · perpendicular · polygon · vertex

1. Max’s square flowerbed has four corners. What is the mathematical name for the type of angle found in each corner? (1 mark)

2. If a triangle has an angle that is greater than 90 degrees, what is this type of angle called? (1 mark)

3. Max bought a bag of soil for £8.50 and a packet of seeds for £2.75. How much did he spend in total? Show your working. (2 marks)

4. Look at the rhombus flowerbed. Max says it has two acute angles and two obtuse angles. Is he correct? Explain your reasoning. (3 marks)

5. If Max builds a rectangular fence around his square bed, are the sides of the fence parallel or perpendicular to each other? Explain how you know. (2 marks)

Draw: Draw Max’s rhombus flowerbed. Label the two acute angles with an 'A' and the two obtuse angles with an 'O'.

Extension challenge: Max wants to add a new flowerbed shaped like a regular pentagon. How many vertices does a pentagon have, and what is the total number of sides?