

Grade 4 Math Assessment: Exploring Angles

Learning objective: To identify, measure, and calculate angles in degrees, and to understand properties of shapes and turns.

Read each question carefully. Use your protractor where needed. Show your working out for multi-step problems. Good luck!

Max the monkey is helping his friends organize their garden paths. He uses his knowledge of angles to ensure every corner is perfectly aligned. Pip the caterpillar watches closely, noting down the measurements in his journal.

Word bank: acute · obtuse · reflex · right angle · degrees · protractor · straight line · calculate

1. Max identifies three different angles in the garden. Label each of the following measurements as acute, obtuse, or reflex: a) 45° , b) 120° , c) 210° . (3 marks)

2. A full turn around a point measures 360° . If Pip turns 90° clockwise, then another 90° clockwise, what is the total angle of his turn? What fraction of a full turn has he completed? (2 marks)

3. Using a protractor, draw an angle of 75° . Label the vertex and the arms of the angle. (3 marks)

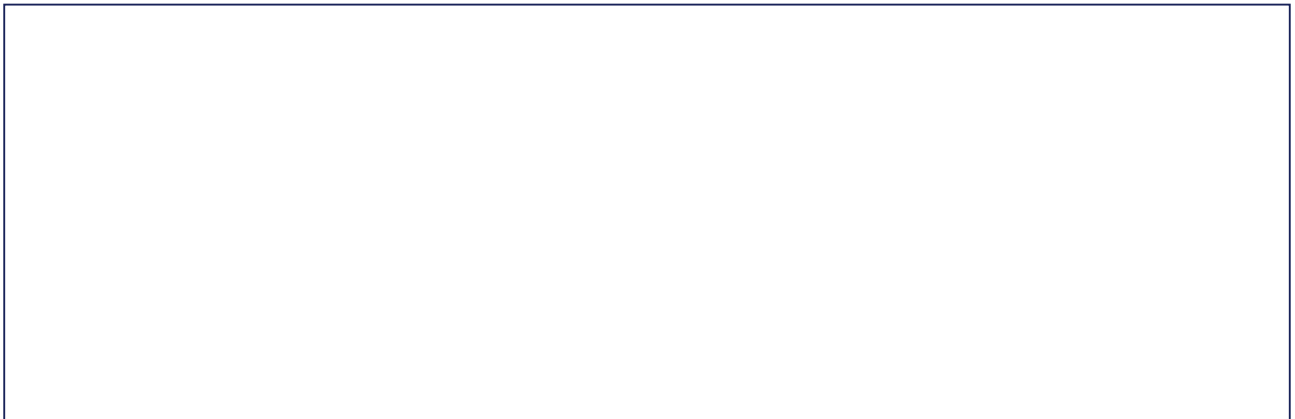
4. Max has two angles on a straight line. Angle A is 65° . Calculate the size of Angle B. Explain the rule you used to find your answer. (4 marks)

5. Calculate the missing angle in a triangle if two of the angles are 50° and 60° . Show your calculation. (4 marks)

6. Max and Pip are designing a symmetrical flower bed. Describe why knowing about angles helps them ensure the flower bed is perfectly symmetrical. Include terms like 'degrees' and 'turns' in your explanation. (5 marks)

7. If a rectangle is cut in half diagonally, what do you know about the sum of the angles in the two new triangles formed? (4 marks)

Draw: Draw a composite shape that contains one right angle, one acute angle, and one obtuse angle. Label each angle correctly.



Extension challenge: Total: /25