

Year 5 Geometry Assessment: Shapes and Angles

Learning objective: To identify, describe, and represent the position of a shape following a reflection or translation, and to measure and calculate angles in degrees.

Read each question carefully. Show your working out for all calculation questions. Use a ruler and protractor where necessary. Good luck!

Max the monkey is helping his friends organise their woodland equipment. He is using maths to map out the playground area, measure the angles of the climbing frames, and move objects into new positions using coordinates.

Word bank: acute · obtuse · reflex · translation · reflection · degrees · protractor · parallel · perpendicular

1. Max measures an angle on a climbing frame and finds it is 115 degrees. Name this type of angle. (1 mark)

2. Using a protractor, draw an angle of 75 degrees. Label the angle. (2 marks)

3. A square has coordinates (2, 3), (2, 5), (4, 3), and (4, 5). If the square is translated 3 units to the right, what are the new coordinates of the vertices? (3 marks)

4. Explain the difference between a reflection and a translation. Use an example involving a shape to support your answer. (4 marks)

5. Calculate the missing angle in a triangle if one angle is 45 degrees and the second angle is 60 degrees. Show your working. (3 marks)

6. Max has a quadrilateral with two pairs of parallel sides and four right angles. Identify the shape and list two of its geometric properties. (3 marks)

7. Extended Writing Task: Imagine you are designing a new adventure playground. Describe how you would use your knowledge of geometry to plan the layout. Mention angles, coordinates, and lines (parallel or perpendicular) in your design plan. Total: /25 (9 marks)

Draw: Sketch a shape that has at least one pair of parallel lines and label them clearly with arrows.



Extension challenge: Total: /25