Test - Angles and polygons

Year: Year 5 · Duration: 40 minutes · /20

Name:	Date:	**Mark:** /20

Question	1	2	3	4	5	Total
marks	4	4	4	3	5	**20**
Mark						

Show your working.

Question 1 (4 marks)

Question 1 – Types and measuring

(a) What type of angle is 160°?

(b) What type of angle is 300°?

(c) Write down the size of a quarter turn, a half turn and a full turn.

(d) The hands of a clock show 5 o'clock. What is the angle between them?

Question 2 (4 marks)

Question 2 – Missing angles

(a) Two angles on a straight line are 72° and x. Find x.

(b) Angles at a point are 130°, 95° and y. Find y.

(c) Three angles on a straight line are 55°, 35° and z. Find z.

(d) Four equal angles meet at a point. What is the size of each one?

Question 3 (4 marks)

Question 3 – Polygons

(a) Name a polygon with 7 sides.

(b) What is the difference between a regular and an irregular polygon?

(c) A regular octagon has sides of 9 cm. Find its perimeter.

(d) A regular polygon has a perimeter of 54 cm and each side is 9 cm. How many sides does it have?

Question 4 (3 marks)

Question 4 – Turns

A robot faces north.

(a) It turns 90° clockwise. Which way does it face? (1 mark)

(b) It then turns through 270° clockwise. Which way does it face? (1 mark)

(c) How many degrees must it turn clockwise from north to face south? (1 mark)

Question 5 (5 marks)

Question 5 – The garden and the sign

A garden is in the shape of a regular hexagon with sides of 7 m. A stop sign at the entrance is a regular octagon with sides of 25 cm.

(a) Find the perimeter of the garden. (1 mark)

(b) Fencing costs £9 per metre. What is the cost of fencing all the way round the garden? (2 marks)

(c) Find the perimeter of the stop sign in centimetres. (1 mark)

(d) At each corner of the octagon the outside turn is 360° ÷ 8. What is the inside angle of the octagon? (1 mark)