

UNIT 3 Angle Geometry

Mental Tests

Mental Test 3.1

1. Two angles in a triangle each measure 35° . What is the size of the third angle? (110°)
 2. How many degrees are there between East and South on the points of a compass, measuring clockwise? (90°)
 3. What is the name of a six-sided polygon? (hexagon)
 4. What is the size of the third angle in a right-angled triangle if another angle is 42° ? (48°)
 5. What is the name given to a quadrilateral which has two pairs of parallel sides of unequal lengths and no right angle? (parallelogram)
 6. How many sides does an octagon have? (8)
 7. How many lines of symmetry does a square have? (4)
 8. You are facing due West and turn anticlockwise through an angle of 45° . In which direction are you now facing? (SW)
 9. What is the sum of the interior angles of a quadrilateral? (360°)
 10. What is the order of the rotational symmetry of a rectangle with two pairs of unequal sides? (2)
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Mental Test 3.2

1. What is the size of an angle in an equilateral triangle? (60°)
 2. How many degrees are there between North and West on the points of a compass? (90°)
 3. What is the name of an eight-sided polygon? (octagon)
 4. In an isosceles triangle, one angle is 66° . What is the size of the other two equal angles? (57°)
 5. What is the name given to a quadrilateral which has two pairs of parallel sides of unequal length and in which all the internal angles are right angles? (rectangle)
 6. How many sides does a pentagon have? (5)
 7. How many lines of symmetry does a regular hexagon have? (6)
 8. You are facing due South and turn clockwise through an angle of 135° . In which direction are you now facing? (NW)
 9. What is the sum of the interior angles of a triangle? (180°)
 10. What is the order of the rotational symmetry of a square about its centre point? (4)
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Mental Test 3.3

1. What is the size of the third angle in a triangle if the other two angles measure 37° and 49° ? (94°)
 2. How many degrees are there between NE and South on the points of a compass, measuring clockwise? (135°)
 3. What is the name of a five-sided polygon? (pentagon)
 4. In an isosceles triangle, two equal angles each measure 53° . What is the size of the other angle? (74°)
 5. What is the name of a triangle with all three sides equal? (equilateral)
 6. How many sides does a nonagon have? (9)
 7. How many lines of symmetry does a rhombus have? (2)
 8. You are facing due South and turn clockwise through 225 degrees. In which direction are you now facing? (NE)
 9. What is the size of the interior angle of a hexagon? (120°)
 10. What is the order of rotational symmetry of a regular octagon about its centre? (8)
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Mental Test 3.4

1. What is the sum of the angles of a triangle? (180°)
 2. How many degrees are there between N and SW on the points of a compass, measuring clockwise? (225°)
 3. What is the name of a four-sided polygon? (quadrilateral)
 4. A right-angled triangle has an angle of size 41° . What is the size of the other angles? (90°, 49°)
 5. What is the name of a triangle with two equal sides? (isosceles)
 6. How many sides does a hexagon have? (6)
 7. How many lines of symmetry does a regular octagon have? (8)
 8. You are facing due West and turn anticlockwise through 180 degrees. In which direction are you now facing? (East)
 9. What is the size of an interior angle in a square? (90°)
 10. What is the order of rotational symmetry of a regular hexagon about its centre? (6)
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