WONDERLEARNERZ PRIMARY ACADEMY â€" OFFICIAL ANSWER KEY & MARKING SCHEME

Types of Angles: Worksheet 3 [ANSWER KEY]

Grade 5 | Mathematics | Ch 7: Types of Angles | Total Marks: 19 | Time: 45 Minutes

Q1. Which type of angle measures strictly less than 90Â°? [1 Mark]

Correct Answer: Acute angle

Explanation: An acute angle is strictly between 0Â° and 90Â°.

Q2. What type of angle is formed by the hands of a clock at 3:00? [1 Mark]

Correct Answer: Right angle (90Â°)

Explanation: At 3:00, the minute hand points to 12 and the hour hand to 3, forming a 90Â° right angle.

Q3. An angle measuring 135Â° is classified as which type of angle? [1 Mark]

Correct Answer: Obtuse angle

Explanation: An angle greater than 90Â° and less than 180Â° is an obtuse angle.

Q4. What is the measure of a straight angle? [1 Mark]

Correct Answer: 180Â°

Explanation: A straight angle forms a flat straight line and measures exactly 180Â°.

Q5. At the Harbor Marine Terminal, an architect designs an A-frame roof where the apex angle measures 72Â°. Classify this roof angle as acute, right, or obtuse. [1 Mark]

Correct Answer: Acute angle

Explanation: Since 72Â° is strictly less than 90Â°, it is an acute angle.

Q6. Look at an analog clock at 5:00. What type of angle (acute, right, or obtuse) is formed between the hour hand and the minute hand? [1 Mark]

Correct Answer: Obtuse angle

Explanation: 5 intervals of 30Â° = 150Â°. Since 150Â° is between 90Â° and 180Â°, it is an obtuse angle.

Q7. A carpenter joins two wooden beams forming a straight line of 180Â°. If one angle is 65Â°, what is the measure of the adjacent supplementary angle? [1 Mark]

Correct Answer: 115Â°

Explanation: Angles on a straight line add to 180Â°. 180Â° - 65Â° = 115Â°.

Q8. Identify the angle classification: Angle X = 90Â°. Angle X is a [?] angle. [1 Mark]

Correct Answer: right

Explanation: An angle of exactly 90Â° is called a right angle.

Q9. Find the missing angle to complete a right angle: 38Â° + [?]Â° = 90Â°. [1 Mark]

Correct Answer: 52

Explanation: 90 - 38 = 52Â°.

Q10. Jake looks at a 95Â° angle and calls it an acute angle because it is close to 90Â°. Why is Jake mistaken? [1 Mark]

Correct Answer: It is an obtuse angle

Explanation: Any angle strictly greater than 90Â° (even 91Â° or 95Â°) is classified as obtuse, not acute.

Q11. A student claims: 'An obtuse angle can measure 195Â°.' Explain the error and give the correct classification. [1 Mark]

Correct Answer: Reflex angle

Explanation: Obtuse angles must be less than 180Â°. An angle greater than 180Â° is a reflex angle.

Q12. Can a triangle have two right angles? Explain using the property of angle sums in triangles. **[2 Marks]**

Correct Answer: No. The sum of all three angles in any triangle is always 180Â°. Two right angles would total 90Â° + 90Â° = 180Â°, leaving 0Â° for the third angle, which cannot form a closed triangle.

Explanation: Two 90Â° angles equal 180Â°, making a third angle impossible in a triangle.

Q13. Explain how you can use the corner of an index card (which is 90Â°) to determine whether an unknown angle is acute or obtuse. **[2 Marks]**

Correct Answer: Place the index card vertex at the angle's corner with one edge aligned. If the other ray hides inside the card, the angle is acute (90Â°).

Explanation: A standard 90Â° corner serves as a physical benchmark for angle classification.

Q14. In a right-angled triangle, one acute angle measures 34Â°. What is the measure of the other acute angle? **[2 Marks]**

Correct Answer: 56Â°

Explanation: The two acute angles in a right triangle add to 90Â°. 90Â° - 34Â° = 56Â°.

Q15. At what exact time between 1:00 and 2:00 do the hands of a clock form an acute angle: at 1:10 or at 1:50? **[2 Marks]**

Correct Answer: 1:10

Explanation: At 1:10 the hands are close together (approx 25Â° acute angle). At 1:50 the hands are widely spread forming an obtuse/reflex angle.