

CLASS 6

MATHS

EXTRA QUESTIONS

Class 6 Maths Chapter 2 Lines and Angles Extra Questions

Extra practice questions for Class 6 Maths Chapter 2, "Lines and Angles", to build confidence beyond the textbook's Figure it Out exercises. These cover definitions, angle classification, degree calculations, and real-life angle spotting.

Contents

Very Short Answer Questions

Short Answer Questions

Long Answer / Reasoning Questions

Extra practice questions for **Class 6 Maths Chapter 2, “Lines and Angles”**, to build confidence beyond the textbook’s Figure it Out exercises. These cover definitions, angle classification, degree calculations, and real-life angle spotting.

Very Short Answer Questions

Q1. What is the key difference between a line and a line segment?

Answer: A line segment has two fixed endpoints and a definite length; a line extends endlessly in both directions and has no fixed length.

Q2. How many endpoints does a ray have?

Answer: One — its starting point. It extends without end in only one direction.

Q3. What do you call an angle that measures exactly 90° ?

Answer: A right angle.

Q4. What do you call an angle greater than 180° but less than 360° ?

Answer: A reflex angle.

Q5. A straight angle equals how many right angles?

Answer: Two right angles ($180^\circ = 2 \times 90^\circ$).

Short Answer Questions

Q6. Classify the following angles as acute, right, obtuse, straight, or reflex: 35° , 90° , 118° , 180° , 260° , 89° .

Answer: 35° = acute; 90° = right; 118° = obtuse; 180° = straight; 260° = reflex; 89° = acute (just under 90°).

Q7. Why can’t an angle be named using only its vertex letter when several angles share that vertex?

Answer: Because it would be unclear which of the several angles sharing that vertex is meant — three letters (with the vertex in the middle) are needed to identify the exact pair of arms forming the angle.

Q8. A ray starts at point M and passes through point N. Can it also be called ray NM? Explain.

Answer: No. In a ray’s name, the first letter is always its starting point. Ray MN starts at M and extends through and beyond N; ray NM would have to start at N and point in the opposite direction, which is a different ray.

Q9. Find the angle between the clock hands at 9 o’clock and at 5 o’clock.

Answer: At 9 o’clock: $9 \times 30^\circ = 270^\circ$, and the smaller angle is $360^\circ - 270^\circ = 90^\circ$. At 5 o’clock: $5 \times 30^\circ = 150^\circ$ (already the smaller angle).

Q10. If a wall clock’s hour hand and minute hand form a straight angle (180°), what time could it be showing (to the nearest hour)?

Answer: 6 o’clock, since $6 \times 30^\circ = 180^\circ$.

Long Answer / Reasoning Questions

Q11. Take 5 points on a page, no three of which lie on the same line. How many line segments can be

drawn joining every pair of points?

Answer: Every pair of the 5 points gives one line segment: $C(5,2) = (5 \times 4) / 2 = 10$ line segments.

Q12. An angle is three times as large as its complement's "partner" acute angle puzzle: if an acute angle x satisfies that $4x$ is still acute but $5x$ is obtuse, list all whole-number degree values x can take, and explain your reasoning step by step.

Answer: We need $4x < 90^\circ$ (still acute) and $5x > 90^\circ$ (becomes obtuse). From $4x < 90^\circ$: $x < 22.5^\circ$. From $5x > 90^\circ$: $x > 18^\circ$. So $18^\circ < x < 22.5^\circ$, giving whole-number values **$19^\circ, 20^\circ, 21^\circ, 22^\circ$** .

Q13. A circular garden has 12 evenly spaced lamp posts around its boundary (like clock numbers). What is the angle at the centre between two adjacent lamp posts? What is the largest acute angle possible between any two lamp posts as seen from the centre?

Answer: Adjacent angle = $360^\circ \div 12 = 30^\circ$. Largest acute angle = largest multiple of 30° under $90^\circ = 60^\circ$ (2 gaps apart); the next multiple, 90° , is a right angle, not acute.

Q14. List three examples of angles you can find in your classroom, and estimate whether each is acute, right, obtuse, or straight.

Answer: Sample answers: the corner of a notebook page (right angle, 90°), an open door held ajar slightly (acute angle), a door opened wide against the wall (obtuse or close to straight angle), the hands of a wall clock at 4 o'clock (obtuse, 120°). (Any three reasonable real-life examples with sensible classification are acceptable.)

Q15. Explain, using the idea of superimposition, how you could check with tracing paper whether two drawn angles are actually equal without measuring them in degrees.

Answer: Trace one angle (its vertex and both arms) onto tracing paper, then place the tracing over the second angle so the vertex and one arm line up exactly. If the second arm of the traced angle also lines up exactly with the second arm of the other angle, the two angles are equal; if it falls short or overshoots, the angles are unequal.

Practice more: [Solutions](#) | [Revision Notes](#) for this chapter.